

The questions in this list will be referred for reply, through the Surgeon-General, to the Medical Officer concerned; whose report will be furnished to the Collector, Divisional Officer or Public Works Executive Officer who was in general charge of the camp. The latter officer will add his own remarks, and send the whole, direct, to Mr. Ballard.

6. Besides the officers of Government above specified, His Grace in Council resolves to circulate both sets of questions to the marginally-noted gentlemen and Societies, inviting them to furnish replies to such questions as they feel themselves competent to answer. The Bishops and Missionary bodies named will be requested to circulate copies of the questions to the most experienced Clergymen and associates; for which purpose twenty additional copies will be furnished to each.

The Hon. Mr. Gajapathi Rao.
 " " " Humayun Jah Bahadur.
 " " " A. Sashaya Sastri, C.S.I.
 " " " V. Ramiengar, C.S.I.
 " Rev. Dr. Chester.
 Mr. Macartney of Sundur State.
 All Missionary Societies.
 The Protestant and Roman Catholic Bishops.
 The nine Medical Officers employed as Sanitary Inspectors (through the Surgeon-General, Indian Medical Department).

7. The attention of all official and non-official gentlemen, answering ar questions, is particularly drawn to the preliminary observations annexed to Lists; and they are requested to use every endeavour to submit their answer local Member of the Commission, Mr. G. A. Ballard, before the 15th September or as soon after as possible.

(True Extract.)

D. F. CARMICHAEL,
Chief Secretary.

To G. A. Ballard, Esq. „ H. E. Sullivan, Esq., Member, Board of Revenue. „ H. S. Thomas, Esq., Member, Board of Revenue. „ the Board of Revenue. „ all Collectors and the Commissioner of the Nilgiri. „ the Public Works Department. „ the Chief Engineer, Department of Public Works. „ the Revenue Department. „ the Revenue (Famine) Department. „ the Chief Engineer for Irrigation. „ the Consulting Engineer for Railways. „ the Conservator of Forests. „ the Director of Revenue Settlement. „ the Sanitary Commissioner. „ the Surgeon-General, Indian Medical Department. „ Military and Civil Surgeons. „ District Engineers. „ Inspector-General of Jails. „ „ of Police. „ C. D. Baynes, Government Agent, Arcot. „ C. A. Liardet, on Famine duty, Arcot. „ E. W. Shaw, on Famine duty, Arcot. „ J. C. Ross, on Famine duty, Coimbatore. „ R. Wilson, on Famine duty, Coimbatore.	To W. A. Howe, Esq., B.C.S., Bellary. „ W. B. Oldham, Esq., B.C.S., Bellary. „ H. M. Kisch, Esq., B.C.S., Bellary of Collector). „ A. Weekes, Esq., B.C.S. Cuddapah of Collector). „ J. H. Cook, Esq., Revenue Survey, Coimbatore. „ C. Travers, Esq. „ F. H. Wilkinson, Esq., Acting District Session Judge, Bellary. „ G. McWatters, Esq., Sub Collector, Coimbatore. „ E. Turner, Esq., Special Assistant, to the Superintendent of the Government Farms. „ the Hon. Goday Naraen Gajapathi Iyer „ „ Humayun Jah Bahadur. „ „ V. Ramiengar, C.S.I. „ „ A. Seshaya Sastri, C.S.I. „ J. Macartney, Esq., Bellary „ the Right Rev. „ „ the Right Rev. „ „ the Very Rev. „ „ the Right Rev. Vizar „ „ „ „ „ „ „ „ „
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Guide to the Compilation of Replies to Famine Commission Questions—continued.

Number.	Districts.	Name of Officers.	Office held and Famine Experience.	ANSWERS TO QUESTIONS EXTRACTED.					
				Chapter I.	Chapter II.	Chapter III.			Section (3).
						Section (1).	Section (2).	Section (3).	
1	2	3	4	5	6	7	8	9	
Vizagapatam— <i>contd.</i>		The Hon. G. N. Gajapathi Row.	Zemindar in Vizagapatam District and Member of the Madras Legislative Council. His experience of the famine is confined to the Vizagapatam District where he had oppor- tunity to observe the effects of distress and to take measures for the relief of the distressed both in his taluks and the town of Vizagapatam.	..	1, 2, 6, 7 & 9.	18	..	35, 37, 43 44 & 45.	
3	Godavari ..	W. S. Foster, Esq. ..	Collector.	9, 23.	..	..	..	..	
4	Kistna ..	J. G. Horsfall, Esq. ..	Acting Collector	23, 24, 25 & 26.	1-9 & 11- 13.	4, 5 & 7-11, 13, 15- 22.	24, 27, 29- 32.	35-42 & 44 & 45.	
	Do. ..	Lieut.-Col. J. O. Hasted ..	Superintending Engineer	..	1, 2, 6, 7, 12.	5, 6, 11- 16, 18- 21.	..	38, 41	
5	Nellore ..	J. Grose, Esq. ..	Collector.—Posted to the District in February 1877, when he found that famine was fully established and that relief works and relief camps had been opened al. over the districts. Saw the famine in its height and decline.	24 & 26	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 & 13.	2-16 & 18- 22.	23 to 28, 30-33.	35-43.	
	Do. ..	Lt. C. B. Henderson, R. E.	Assistant Engineer, Public Works Depart- ment.	6	6	5, 11, 14, 16, and 18-20.	..	35, 39.	

GUIDE TO THE COMPILATION OF REPLIES TO FAMINE COMMISSION QUESTIONS.

ANSWERS TO QUESTIONS EXTRACTED.																														
				Chapter III.																										
				Chapter II.			Section (1).			Section (2).			Section (3).																	
				Chapter I.			6			7			8			9														
Districts.				Name of Officers.				Office held and Famine Experience.				5			6			7			8			9						
Number.				3				4				5			6			7			8			9						
1				Ganjam								Acting Collector. — For three months, May to July 1866, supervised gratuitous relief kitchen at Russelkonda in Ganjam during the famine of 1866; watched relief in Vizagapatam given to their tenants by Zemindars during the pressure caused by the high prices during 1877 and 1878, and opened camps on a very small scale for a short time.							1, 3 & 4.			2 & 3, 4, 12, 13 & 14.			23, 24 & 32.			36, 37 & 40.		
2				Vizagapatam.								Acting Principal Assistant Collector. Was employed during the scarcity of 1866 in collecting notes of the actual condition of the people in various divisions of North Arcot and Salem Districts for Sir William Robinson. In 1871 became Manager of the Ramnad Estate; was on furlough part of 1875-76, but returned in time to take charge of all the relief operations in that quarter during the famine of 1877; transferred to Vizagapatam in March 1878.							1, 2, 6, 8, 10, 12 & 13.			2 & 3, 4, 12, 13 & 14.			23, 24 & 32.			35, 36, 38 & 43.		
				Do.								J. Lee Warner, Esq.																		

17	Coimbatore	A. Mc. Webster, Esq.	Commissioner of the Nilgiri from December 1876 to March 1878 and Collector of Coimbatore from March 1878.	23	1-3, 5-11 & 13.	2-7, 12, 15, 18-22.	23-25 & 30-33.	35-45.				
Do.	Do.	G. Mc. Watters, Esq.	Sub Collector.	..	..	4, 5.	..	..	42, 43, & 44 & 45.			
Do.	Do.	A. Pinto, Esq.	Deputy Collector. Was General Duty Deputy Collector in charge of Bhavani and Satyamangalam Taluks for some time during the course of the famine.	..	..	5, 6, 20.	..	..	..			
Do.	Do.	M. R. Ry. Venkatramaniah.	Tahsildar of Erode Taluk	..	1-10, 12 & 13.	..	..	38, 44 & 45.				
Do.	Do.	M. R. Ry. Seetharamiah.	Tahsildar of Palladam	..	1-4, 6-10 & 12.	2-6, 8, 10, 11, 15, 16, 19-21.	24, 26, 27 & 31.	38, 39, 43-45.				
Do.	Do.	J. H. Cook, Esq.	Special Assistant in charge of relief operations, Udumalpettai, one of the most distressed taluks of the district all through the famine.	..	..	..	..	..	..			
Do.	Do.	Lt.-Col. W. F. Bartleman	Bengal Infantry. Has been Famine Relief Officer, Dharmapuram Taluk, for nearly a year and of the Erode Taluk for about 3 months.	..	7, 8 & 10.	2 & 3, 5, 18, 19.	25 & 26.	38-40, 44 & 45.				
Do.	Do.	Major G. C. Ross	16th Bengal Cavalry. Has had 12 months' experience of famine relief duty in the Coimbatore and Bhavani Taluks from September 1877 to September 1878.	..	7, 8, 10.	6, 7, 10, 11, 13, 14, 19.	23-25, 27 & 32.	42.				
Do.	Do.	A. W. Scanlan, Esq.	Relief Officer. Has been on famine duty in the district for nearly one year. Has had 18 months' experience of the Bengal famine of 1873-74.	..	6, 7.	2 & 3, 5.	..	38, 44 & 45.				
Do.	Do.	D. K. Homan, Esq.	Special Relief Officer in Bhavani and Satyamangalam Taluks from October 1877 to September 1878.	..	..	2 & 3.	25.	..				
Do.	Do.	T. H. Homan, Esq.	Relief Officer. Had charge at first of gratuitous relief operations of Satyamangalam Taluk, then of Erode and half of Palladam whence he was sent to Kangundi Division, North Arcot District, and then back to Erode Taluk.	..	..	..	24-26.	38.				
Do.	Do.	Captain A. Awdry	District Engineer. Has been continuously on duty in the district throughout the whole famine of 1876, 1877 and 1878.	..	4, 6, 12.	1-14, 16 & 18-22.	25.	39, 41 & 42.				
Do.	Do.	A. Russell, Esq.	Assistant Engineer in charge of the Coimbatore Division. Was engaged on the Buckingham Canal Famine Relief Works in the Nellore District.	..	..	2 & 3, 5, 7, 10, & 11.	..	..				
18	Malabar	W. Logan, Esq.	Collector.	23	..	..	..	..				

17	Coimbatore	A. Mc. C. Webster, Esq.	Commissioner of the Nilgiri from December 1876 to March 1878 and Collector of Coimbatore from March 1878.	23	1-3, 5-11 & 13.	2-7, 12, 15, 18-22.	23-25 & 30-33.	35-45.
	Do.	G. Mc. Watters, Esq.	Sub Collector.	..	..	4, 5.	..	..
	Do.	A. Pinto, Esq.	Deputy Collector. Was General Duty Deputy Collector in charge of Bhavani and Satyamangalam Taluks for some time during the course of the famine.	..	..	5, 6, 20.	..	42, 43, & 44 & 45.
	Do.	M. R. Ry. Venkatramaniah.	Tahsildar of Erode Taluk	..	1-10, 12 & 13.	..	..	38, 44 & 45.
	Do.	M. R. Ry. Seetharamiah.	Tahsildar of Palladam	..	..	..	..	..
	Do.	J. H. Cook, Esq.	Special Assistant in charge of relief operations, Udumalpettai, one of the most distressed taluks of the district all through the famine.	..	1-4, 6-10 & 12.	2-6, 8, 10, 11, 15, 16, 19-21.	24, 26, 27 & 31.	38, 39, 43-45.
	Do.	Lt.-Col. W. F. Bartleman	Bengal Infantry. Has been Famine Relief Officer, Dharapuram Taluk, for nearly a year and of the Erode Taluk for about 3 months.	..	7, 8 & 10.	2 & 3, 5, 18, 19.	25 & 26.	38-40, 44 & 45.
	Do.	Major G. C. Ross	16th Bengal Cavalry. Has had 12 months' experience of famine relief duty in the Coimbatore and Bhavani Taluks from September 1877 to September 1878.	..	7, 8, 10.	6, 7, 10, 11, 13, 14, 19.	23-25, 27 & 32.	42.
	Do.	A. W. Scanlan, Esq.	Relief Officer. Has been on famine duty in the district for nearly one year. Has had 18 months' experience of the Bengal famine of 1873-74.	..	6, 7.	2 & 3, 5.	..	38, 44 & 45.
	Do.	D. K. Homan, Esq.	Special Relief Officer in Bhavani and Satyamangalam Taluks from October 1877 to September 1878.	..	..	2 & 3.	25.	..
	Do.	T. H. Homan, Esq.	Relief Officer. Had charge at first of gratuitous relief operations of Satyamangalam Taluk, then of Erode and half of Palladam whence he was sent to Kangundi Division, North Arcot District, and then back to Erode Taluk.	..	..	..	24-26.	38.
	Do.	Captain A. Awdry	District Engineer. Has been continuously on duty in the district throughout the whole famine of 1876, 1877 and 1878.	..	4, 6, 12.	1-14, 16 & 18-22.	25.	39, 41 & 42.
	Do.	A. Russell, Esq.	Assistant Engineer in charge of the Coimbatore Division. Was engaged on the Buckingham Canal Famine Relief Works in the Nellore District.	..	..	2 & 3, 5, 7, 10, & 11.	..	..
18	Malabar	W. Logan, Esq.	Collector.	23	..	..	..	..

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				Chapter I.	Chapter II.	Chapter III.			Section (3).
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1		3	4	5	6	7	8	9	
19	Malabar—contd.	Lieut.-Col. R. B. Kennedy	District Engineer. Has had no experience of famine.	..	6.	12, 20.	..	..	..
20	Do.	J. W. Minchin, Esq.	President of the Coffee Planters' Association, Wynad.	..	..	..	..	..	..
20	South Canara.	Rev. A. Mænnier and others.	..	23	..	..	..	..	..
20	Madras	Sir W. R. Robinson, K.C.S.I.	Late Senior Member of Council, Madras	23, 24 & 26.	1, 4, 6, 9, 12.	1-4, 6, 10, 14, 19.	23, 25, 26, 30-32.	35-41 & 43.	..
20	Do.	Major Ross Thompson, R.E.	District Engineer, Presidency	..	..	2-4, 6, 8, 10-12, 15, 20, 21.	..	..	..
20	Do.	Major S. C. Clarke, R.E.	Executive Engineer, Buckingham Canal Works.	..	6	2-4, 6, 7, 11, 14, 18-20.	..	..	..
20	Do.	Captain G. Maitland	Executive Engineer	..	..	4, 6.	..	..	..
20	Do.	W. Wilson, Esq.	Director of Revenue Settlement, Madras	9	..	..	..	..	..
20	Do.	Lieut.-Col. Beddome	Conservator of Forests, Madras Presidency.	23	..	..	..	..	..
20	Do.	Surg-Major W. R. Cornish.	Sanitary Commissioner, Madras	24 & 25.	..	..	..	..	..
20	Do.	R. J. Melville, Esq.	Collector of Madras	26.	..	..	..	..	..
20	Do.	P. G. Fitzgerald, M.D.	Deputy Surgeon-General, Mysore Division and Ceded districts.	..	..	5.	..	..	..

EXTRACTS OF REPLIES TO QUESTIONS 9, 23, 24, 25 AND 26 IN CHAPTER I. NOT DISPOSED OF BY THE BOARD OF REVENUE.

QUESTION 9.—What is the ordinary economic condition of the portion of the agricultural population directly engaged in the cultivation of the land and possessing any proprietary or occupancy interest in land? Illustrate your reply by giving the actual facts as to a few typical instances of such persons taken from four or five different villages in several districts of your Province. State with regard to each, what area of land he holds for tillage or grazing, what his family consists of, what amount of food-grain and what value of other produce he raises on an average off his land in a year, what rent or revenue or cesses he pays for his land, what expenses he incurs in hired labor other than his own labor and that of his family, what amount he spends in a year in purchases of necessities which he cannot produce on his land, what kind of house he lives in, how many rooms it possesses, and how many out-houses, what quantity of cattle or other live-stock he possesses, what other property, and what stock of grain. How does he dispose of any surplus income, whether by hoarding or lending his money, or investing it in ornaments, or spending it on marriage ceremonies, or otherwise? What are his debts, and to what are they commonly due? State what proportion of the agriculturists of your district you believe to be in debt, and what proportion their average indebtedness bears to their average yearly income. Endeavour to obtain the opinions on these points of well-informed and trustworthy native residents of different districts, and in submitting such opinions explain the position of your informants, and the probable means at their command of forming correct conclusions.

Mr. Crole.

The ryots are ordinarily poor, and mostly involved in debt contracted generally for purchase of cattle, for performance of marriages and other ceremonies, and partly for occasional or partial failure of the crops. In illustration of this a few statements indicating the actual facts in regard to certain persons in the villages round Kurnool are herewith sent.

To give a general view of the ordinary condition of the ryots, the rent-roll of the district with the average in grain for each class of ryots is subjoined:—

QUINQUENNIAL Statement showing the Rent-roll in the District of Kurnool for Fasli 1281.

Items.	SINGLE PUTTAS.		JOINT PUTTAS.		Average rate payable to Govern-ment.	Grain.
	No.	Assess-ment.	No.	Assess-ment.		
1	2	3	4	5	6	7
Ryots paying under 10 Rs.	41,600	RS. 1,65,008	10,234	RS. 40,836	RS. A. P. 3 15 6	400
Do. from 10 to 30 "	17,773	3,04,755	5,243	86,677	17 0 0	3,400
Do. from 30 to 50 "	4,566	1,61,276	1,267	46,017	35 8 7	7,100
Do. from 50 to 100 "	2,624	1,65,845	809	51,730	63 6 0	12,665
Do. from 100 to 250 "	977	1,27,929	331	44,484	131 13 0	26,300
Do. from 250 to 500 "	117	34,819	34	10,272	298 9 10	59,700
Do. from 500 to 1,000 "	10	6,349	5	3,110	630 9 7	1,26,100
Total ..	67,667	9,65,981	17,923	2,83,126	14 9 6	

Mr. Crole—continued.

From this statement it will be seen that no less than 60 per cent. of landholders are pauper ryots, holding lands assessed on an average at 4 Rupees, and yielding, according to settlement registers, about 800 measures, or 2,400 lb. of grain. Deducting one-fourth for the silt, and about one-half as much for payment of cesses and cost of agricultural implements, there remain about 500 measures, or about 1,500 lb. for consumption.

Now, a Hindu family, however poor, consists on an average of five persons, requiring about 4 lb. a day, so that the yield is barely sufficient for a year's consumption. It is therefore clear that all these petty ryots must, as a rule, make up the sum required for extra expenses by field labor to others by sale of ghee, generally the produce of a she-buffalo and by other ways.

The next class is not much superior to the 10-Rupee Puttadars. They hold land assessed on an average at 17 Rupees, yielding about 3,400 measures of grain. But most of them have undivided relatives in the family, possessing an interest in their lands.

The other classes of ryots may be put down as well-to-do classes, but even among them there are many instances in which the people are very much involved in debts, but this is generally due to causes other than those connected with their position as agriculturists.

Mr. Price.

I must confess that I do not quite understand this question. I take it, however, to mean that inquiry is made as to the general circumstances of the cultivating classes.

As a rule, in this district the cultivators, whether proprietors or occupying farmers, look mainly to the land as their means of subsistence. I do not in this category include the holders of puttahs below 10 Rupees, as these can hardly be held to be farmers in the proper sense of the word.

The ordinary ryot lives upon the produce of his land. Where he is a small holder, all the members of his family assist in agricultural operations; where he is a man of some substance, he employs, upon a monthly salary, farm-laborers to the extent that he requires. Any surplus remaining after deducting the cost of maintenance and the payment of the revenue due to Government or of the rent to the landlord is devoted to the purchase of clothing and petty luxuries. Any balance which remains is spent either in acquiring cattle or, if the ryot thinks that he has enough of these, is either buried or converted into jewels for the females of his family. It is only when the ryot has acquired as much as he thinks necessary in the way of cattle, land, and jewels, that, if he does not bury his money, he assumes the character of money-lender, and gives loans at heavy interest to his less fortunate brethren.

One peculiarity of the rustic of Southern India is his fondness for borrowing. He wishes to marry his daughter or to bury a relative and perform the funeral ceremonies, his riches consisting chiefly in grain, cattle, and so on; he goes to the village sowcar or the money-lending ryot, and borrows what is a comparatively high sum. It is a point of honor with him not to be niggardly in his display on such occasions, and he will obtain a loan for this purpose out of all proportion to his financial position, and incur thereby responsibilities which will hamper him for years.

Take, for instance, the case of No. 7 in the accompanying list. Although last year was one of famine,—and he cannot be called a rich man,—he spent Rupees 300 on his father's funeral ceremonies. He is a respectable individual of the fairly well-to-do ryot-class, and

Mr. Price—continued.

this fact no doubt led him into a decided extravagance. Had he been economical, the village would have commented upon it, and he been put to shame.

The list, which I now send, has not been prepared as I intended; time, however, will not allow of alterations. I had directed a collection of cases to be made all over the district, but in consequence of a misapprehension of orders I received replies only from Tahsildars, and they seem to have taken the better class alone. It is remarkable how large a proportion of those persons examined state that they have debts arising from the famine. That they have is very probably true, but I am inclined to think that these have been exaggerated, as I know for a fact that during the famine in the Cuddapah District, any one but a substantial ryot could not obtain a loan. I often made inquiries of the people on this point, and the almost constant reply was that the sowcars said that land was of no value, and that the cases of "alive to-day, dead to-morrow," were so frequent that they would not lend without substantial security. Nos. 7, 8, and 9, I took myself hap-hazard from ryots who came to my Cutcherry on other business. I wrote down what each man told me after having cross-examined him as much as I could to test the accuracy of his statements. I believe that the information obtained is fairly correct. Indebtedness is undoubtedly an institution of rural life in India; but I do not think that it is, as a rule, the result of the *want of means of living*, so much as of the inexplicable extravagance which mingles with marked economy in the life of the people of this country.

What the degree of indebtedness of the cultivating classes is, it is not possible for one to say or even estimate with any degree of useful accuracy. The period through which the country has passed has been of the most abnormal character, and the people have, since the famine has taken a turn for the better, gone to the money-lender for the means of starting again. The Law Courts are no test of the extent to which this has taken place, for the major part of these transactions will never appear before them, the loans having been received from wealthier ryots, friends, or relatives. I asked the most intelligent Native that I know in the district what he thought, and though himself a man of the legal profession, he told me that he could form no opinion.

Mr. Gordon.

The information required is supplied in a tabular statement of specimen instances taken from different taluks. Well-informed natives consider that from a half to two-thirds of the agriculturists are in debt.

The higher classes chiefly spend their savings in ornaments and the lower classes, such as Pariahs, Chucklas, Madigars, Boais, &c., spend them in drink. Debts are very often so large as not to admit of repayment within the debtor's life-time.

Among the reasons of debts are—

- (1.) Losses by bad seasons.
- (2.) Caste rules, which demand large expenditure on marriages, &c.

Mr. Wilson.

I can answer this question only in the most general manner, and only with reference to the district I know best—the Kistna. The ryots of the delta-irrigated villages of this district are as a rule in most comfortable circumstances; not a few are rich, and combine commercial with agricultural pursuits. The generality of the upland ryots are in fair circumstances so far as can be judged from external

Mr. Wilson—continued.

appearances; they are strong, hearty and healthy to look at. With hardly an exception every ryot, even the poorest, owns his own ploughing-cattle and implements of agriculture. There are few of the well-to-do ryots who do not own at least one bandy; those chiefly in use in the Western Taluks are known as "Oopara bandloo," small carts with wheels of solid stone or wood; they are not used much beyond the limits of the village. In the delta the dwelling-houses are chiefly of mud roofed with tiles or thatch; in places the ordinary mud hut has given way to a considerable extent to buildings of a more substantial character. In the Western Taluks the houses are of mud, or of stones in mud, with flat roofs constructed of wattle and dab.

I can give no opinion regarding the extent of the indebtedness of the ryots, but I know from my experience as a judge that the poorer classes of ryots are generally in the hands of the village sowcar, who advances the expenses necessary for cultivation, recovering them in kind at much a lower value than the market rate of the day.

The question embraces some matters that do not fall within the ordinary scope of settlement operations. Officers in charge of parties have been directed to make inquiries and give sketches of the kind contemplated by the question. These will be forwarded when received.

Mr. Goodrich.

In Zemindari tracts ryots generally hold puttass varying from Rupees 30 to Rupees 300. In wet lands they grow paddy as first crop and indigo, gram, and gingelly as second crop if a copious north-east monsoon has left water in the tanks. In some lands, if there are rain in the spring, oodalu and chamalu are grown before paddy is transplanted. In dry lands ragi, cumboo, and gingelly are grown as first crop, and after these are harvested the land is ploughed again and cholum, horse-gram and green-gram are sown. The ryot grows all the necessaries of his life on his land, or can procure them at the market by barter of his spare produce. Sufficient quantity of paddy and dry grains required for consumption of the family is preserved and the rest sold. The ryot grows cotton and gets his cloths woven. The lamp-oil plants grown in backyards and hedges will be ample to produce seed sufficient to make the oil required for his use. A ryot paying an annual assessment of Rupees 100 spends about Rupees 50 in manuring land, paying wages to hired laborers, purchasing salt and other expenses paid for in cash. The value of the outturn on the land may be estimated at Rupees 300. After deducting from this amount the annual rent and the land-cess (at the rate of half anna in the Rupee) there remains a balance of Rupees 150. Of this Rupees 100 will go towards household expenses and maintenance of his family, whose labor is the mainstay of the farm. The balance is spent either in lending, in paying interest on old debts, or in purchasing ornaments, or in celebrating marriages. The above estimate refers only to cases where the ryot gets an average crop. If the crops fail so that he has not a saleable surplus to the amount of his sist he will be obliged to borrow to pay the sist and must stint himself in food. The ryots in most cases have large families, consisting of from ten to twenty souls. They all work in the field, and hired labor is employed only at the time of transplantation and reaping. They generally live in thatched houses containing two or three terraced rooms (with clay ceilings and a thatch over all) to suit the requirements of the family. A ryot paying Rupees 10 rent keeps two or three pairs of bullocks and one or two cows whose calves he sells. It used to be estimated that about one-

Mr. Goodrich—continued.

of the farmers in the district were in debt, their debts amounting to half of their annual income.

It is believed that recent high prices have very greatly reduced the debts of the class.

Mr. Foster.

The condition of the agricultural classes varies exceedingly throughout the district in the delta; the ryots are generally well off, while in the hilly jungle tracts the people are very poor. In the delta the greater part of the produce of land is rice, and the ryots have to sell this to buy their other necessities with the money thus obtained; but in the upland parts a ryot will often get from his land almost all that he may require—food, cotton, oil; he can get his firewood from the jungle as also bamboos and posts for his house; he has no cultivation expenses as his family suffice for this; he has to buy no fodder for his cattle; he is always able to sell the milk he may not require, or at all events to give it in exchange for something else; but he is not able to save anything nor to keep a supply of food for a bad season. But then the jungles amongst which he lives gives him some food, which he has only the trouble of gathering; it is not so good and nutritious as his ordinary food, but it is enough to keep up his strength, but this cannot go on for two years without its telling seriously on him.

Those who have surplus will either get ornaments made of it or keep it by them. They will generally borrow money on occasions of any marriage, and this will generally keep down the surplus; some will lend money; some few will invest their money in Government securities.

I suppose about a fourth of the agriculturists are in debt, but they do not on an average owe more than a year's income. With the high prices of last year, many of the ryots in the delta have been able to clear off their debts.

QUESTION 23.—Has there been within the historic period any sensible denudation of the forest in, or bordering on, your Province? Can it be tested by statistics showing over how much area forest or scrub jungle has been cut down? Can you state any specific facts which lead you to think that such deforestation has caused injurious effects in anyway, either in respect to the fall of rain, or the abundance or permanence of water in streams, or wells or the subsoil, or the denudation of the surface soil so as to render it unfit for cultivation? And what injury has been produced, and to what extent? Can you adduce any direct evidence that such injury as you think has been caused by the clearing of forest, has been remedied by its reproduction? If you think the clearing has been injurious, what steps would you propose to take towards reboisement? Should it be done by artificial planting, or by conservation of the tract, so as to keep out cattle-grazing and fires? Can such consideration be effected without interfering with any vested rights of the people, or with their consent, if interference is necessary? Which of the two methods would be easiest, cheapest, quickest of operation, and most effectual? To what extent and on how large an area could either method be followed?

Sir W. B. Robinson.

The advancement of population and cultivation has led to the substitution of agriculture for scrub and jungle through great tracts in South India of late years, without any evidence of injurious effects on the South-West or North-East Trades which supply South India with its moisture. The stratifications of the earth's surface which fill the country's springs—deep-seated enough to be uninfluenced

Sir W. R. Robinson—continued.

by surface verdure—and supply its streams have not changed; and cultivated land has doubtless proved here as elsewhere a better absorbent of moisture than scrub and jungle-clad waste. Forests have not been arresting famines in India, nor has their denudation been affecting the solar heat in general in recent years. Human health has improved where formerly malarious fevers searched the pioneers of cultivation under jungle influences; and the haunts of wild beasts have receded. I think therefore that this fashionable scare need not trouble the Famine Commission in relation to the failure of the monsoons and natural droughts arising therefrom. At the same time good and judicious forest conservancy and plantation are needed here as elsewhere for their own obvious reasons. But State forest conservancy will only be acceptable to the people, where it is pursued without traversing legal and prescriptive conditions, and is divested of confiscatory wrongs. The people, too, may be aided in the conservancy of their communal and private forests and jungles by judicious direction without traverse of prescriptive rights or advancement of novel claims by the State. I can only hope that fanciful famine indictments are not now to be added to the difficulties and theories of the forest question. As a famine question probably food areas may be preferred to forest and scrub areas; and the Commission may be asked to consider the cross allegations—whether so-called forestry has increased the cattle mortality, destruction of manure and so on.

Mr. Pennington.

The denudation of the forests in this district has been the constant theme of complaint for many years, and it has been alleged that the violence of floods has been sensibly increased thereby. It is certain, at any rate, that last December was distinguished by two of the most violent floods ever known in the valley of the Tamrapurni. There has been no *reboisement* to speak of though some good has been done by an informal kind of conservancy. No doubt the proper remedy for the forests is *strict* conservancy of all the real jungles, sufficient space being left on the outer slopes for cattle-growing and firewood. Such conservancy can, in my opinion, be carried out without any *improper* interference with the vested rights of the people, which, however, require to be carefully *regulated*.

Mr. Gordon.

There has been no sensible denudation of forest in this district within recent times. The Sundur State is the part which contains most forest. This is being yearly felled, and no steps are taken to supply the place of the trees which fall to the axe. There are no statistics showing over what area scrub has been cut down.

The district may be said to be devoid of jungle, although scrub exists in parts. These tracts, if preserved, would probably bear jungle of some size. Measures are being taken to conserve a portion of the scrub in Gooty and Anantapur Taluks, and the experiment, if successful, will probably be extended. In this instance a sufficient portion of the tract will be left to the villagers for their use. Planting would be attended with great expense, except on the banks of perennial rivers, and would probably, except under such circumstances, fail to produce large timber. Owing to the stratum of rock to be found at a short distance from the surface, trees are stunted throughout such portions of the district as I have observed. In the black cotton soil nothing except the Babul and the Margosa appears to thrive. It is to be doubted if the hills in this district, except those in the Sundur State, were ever covered with jungle. Their rocky nature in many cases renders it very improbable that they ever

Mr. Gordon—continued.

could have been so. Such statistics as exist go to show that there has not been any general decrease in the fall of rain for the last twenty years.

Mr. Stokes.

There has been denudation, especially on the low hills and their neighbourhood, near the large towns and villages. This continues and will do so till other sources of firewood are created. There has also been great destruction of jungle by fire. There are no statistics. No facts were on record showing the effect of this denudation. There has been no reproduction of forest. The remedies must be by replanting and conservation. The importance of vested rights has, in my opinion, been greatly exaggerated. A check ought to be put on free felling in Zemindari tracts.

Mr. Price.

There has; but it is impossible, as regards this district, to state, as there are no books of reference or statistics available, what extent has been destroyed. When looking over some old letters a short time ago I saw reference to jungles which now no longer exist. I do not think from the look of the country that there ever could have been much real forest in it. It must have been pretty nearly all scrub. The cocoanut and bamboo were introduced within a very recent period, and so were the now all-pervading *Casuarina* and many other trees. The Striharikottah jungles, which now belong to Nellore, but which formerly were part of this district, were, within the memory of living man, dense thickets filled with deer and other wild animals. They, until a few years ago, were hacked to pieces for firewood for Madras, and have only lately been conserved. This district being so exceedingly flat, the only way in which deforestation would appear capable of affecting it would be by decreasing the rainfall. There are no facts obtainable to show whether this has occurred or not, nor has there been, as far as I know or could ascertain, any injury resulting therefrom.

My knowledge of the Salem District and its forests in which I took some interest extended over a considerable period. Within the eight years during which I was there I recollect large patches of jungle which, when I knew them first, were thick and heavy, giving cover to abundance of large game, completely cleared away for cultivation. I know of acres of forests hewn down for the railway, and of miles of it destroyed by fires, which, with a sufficient Forest Staff, could have been protected. I know of two spots where, within my own memory, there were springs which ran all the year round, and which in consequence of the felling of the jungle have been entirely dried up. One was on the Melgherry Hills, the other at a place called Kodagur. I have seen, during the showers of the south-west monsoon, clouds pass over a large open clearing, and be precipitated in rain the moment that they were over a sholah. I consider, from what I have seen, that forest does affect the rainfall. The clearing of forest, which is within my own knowledge, has most certainly affected the permanency of water in the jungle-streams, which are the feeders of the larger rivers, and I could personally point out the particular spots. In the northern portion of the Salem District, where the country is rolling and soil red earth, I myself know places where the clearing of scrub jungle for cultivation has led to the appearance of large nullahs which are constantly growing; this, however, is not very extensive. It is as yet far too early for any one to form an opinion as to the effects of the reproduction of forest in spots where it has been cleared away. Efforts to this end have been largely made in the Cuddapah and Salem

Chapter I.—Question 23.

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Mr. Price—continued.

Districts, both of which I know well; but the forest which has by these means been raised is, as to that which preceded it, as a toddling child is to the full-grown man. I have not the slightest doubt that the clearing of the forest has exercised an injurious effect upon the streams. I consider as a means of *reboisement* that all hill-jungle should be conserved and that the cutting of timber or occupation of ground for cultivation for a certain distance along the margins of all streams should be prevented. I would at first combine artificial planting with keeping out cattle and fires, but I would not in restoring follow the course adopted for many years by the Forest Department, viz., planting in trenches or planting out and watering. The theory which I have long held is that in making up forest one should follow Nature as much as possible. She distributes seeds of different kinds in such places as are favorable for their germination and growth, and all that I would, therefore, do would be to collect large quantities of the seeds of jungle trees of the adjacent region, and just before the rain send men round with bags of these and a mamotie and instructions, wherever there was a blank space and a favorable looking spot, to dig a small hole, sow seeds, and leave them to take their chance. I would keep out all goats and sheep; they and fires are fatal to young forest. Cattle are not so bad, but still they are better out of jungle until it is well up. This plan of sowing I tried in 1865 on the hill near Arcot Railway Station, but I was moved the next year, and I believe that my successors did not trouble themselves any further with the experiment. I did not see the hill for some years afterwards, but when I did, I could plainly perceive in places the effect of the one year's work. The Sub Collector, at my suggestion, is trying my plan on the low bare hills about Chingleput. In the Salem District I left comparatively small patches of jungle in the plains, i.e., which I had made by ploughing the land and sowing broadcast such seeds as were suitable to the soil. I have recently heard that these bore the late drought well, and that they have grown up in a surprising manner. I have experimented upon trees of which in two districts I have planted altogether pretty nearly half a million in many ways, and I am convinced that the plan which I have mentioned is the cheapest and most effective. Sheep, cattle, and especially goats, must however be kept out for four or five years, and precautions against fire, by cutting rides and clearing them every year, must be taken. The question of the vested rights of the people is one which requires systematic treatment. In both the Salem and Cuddapah Districts there are miles upon miles of forest land which could be conserved without injury to the people, or depriving them of sufficient space for pasturage. The Native custom has been to consider all Government waste land, grazing ground, upon which any one who chooses may feed his cattle, &c., may hack the saplings to pieces to as great an extent as may please him and upon which, when he thinks it desirable to improve the pasturage, he may light a fire and burn up thousands of young trees in order to procure fresh grass. These may be called vested rights, but I do not consider them such. The destruction of the forest has gone on to such an extent over the parts of the Presidency with which I am acquainted, that it is high time, if any thing in the way of conservancy is intended, to take the matter in hand. It is quite possible to work this in such a way that the people, cattle, &c., shall be excluded from certain tracts until they have grown up to that degree at which grazing will do no harm, when another piece might be taken up. I would certainly not allow the people to have the "run" of the jungles in the way in which they for many years have.

Chapter I.—Question 23.

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Mr. Foster.

Considerable denudation of the forests is continually going on through what is called *pôdu* cultivation. The ryot cuts down the trees and burns them and sows his seed in the ashes. He sometimes sows a second crop on the same land, but he generally moves to another block after he has got one crop and burns the second block down. He will not come back to the first piece for about eight or ten years. I think, as a general rule, he prefers never to cultivate the same piece of land twice in his lifetime, provided he can find other pieces of jungle to burn.

Mr. Logan.

Enclosure No. I gives an approximate idea of the extent of forest cleared, within the last twenty years, for agricultural purposes. In Malabar, for a long period, promiscuous and injudicious felling of forest timber trees by private parties has been going on to a mischievous extent. No attempt is ever made to plant up the tracts thus denuded.

As yet, however, no great injury has been caused. In some places, a sensible diminution in the permanence of water in the subsoil is, I am informed, perceptible in the case of fields and gardens situated in the midst of detached hills on which there was formerly a good deal of scrub jungle now no longer in existence. As regards the rivers, however, deforestation has not yet, fortunately (except perhaps in the Cherakal Taluk), been pushed sufficiently close to their sources either to cause an appreciable diminution in volume, or to check a continuous flow of water throughout the year.

The best remedy that suggests itself to me for the evil threatened is to take steps to bring under conservancy as large an extent of the forest tracts as possible, either by private arrangement with the proprietors (for the largest proportion of the forests is considered as private property in Malabar), or, if necessary, by legislative interference under the Forest Act, 1878.

I do not, however, think that the time has arrived when further legislation should be had recourse to as far as Malabar itself is concerned, though possibly district officers on the eastern side of the ghats may have good reason to take exception to the denudation of the ghat forests situated in this district.

I think it is worth while considering whether we might not, with advantage to all, extend forest conservancy in the district by private arrangement with the proprietors where such exist. A good beginning has already been made, e.g., in the case of the Conolly Teak Plantation near Nelambur on the bank of the Beypore river.

STATEMENT showing Acreage of Forest land in the Malabar District cleared for purposes of Cultivation during the last Twenty years.

Taluka.	Extent in Acres of Land cleared.	Remarks.
1. Cherakal	348,783 3 5	The extensive clearing in Cherakal was for Ponom (Kumari) cultivation. The land was not permanently cleared. Scrub jungle grows up in the years when there is no Ponom crop. In Wynad the clearing was chiefly for coffee.
2. Kotayam	20,230 2 0½	
3. Kurambranad	40,580 5 4	
4. Wynad	119,566 0 0	
5. Calicut	3,312 4 0	
6. Ernad	4,593 0 0	
7. Valuvanad	2,019 6 6½	
8. Palghat	13,695 0 0	
9. Ponnani		
10. Cochin		
Total	552,779 4 15½	

Mr. McC. Webster.

There has been a very great denudation of forest in this district within the last forty years. We have no statistics showing over how much area forest or scrub jungle has been cut down, but lands are now miles away from the forests which, within the memory of man, were covered with dense jungle and were overrun with wild elephants. I do not know of any specific facts which lead me to think that the deforestation has caused injurious effects as regards the fall of rain, though it has had many evil effects which I will notice. The question has in this district attracted considerable attention, and I forward a report* on the agriculture of the district by Mr. W. Robertson, the Superintendent of the Government Farm, and some remarks* thereon by Mr. Wedderburn, the late Collector, who had had an experience of thirty-six years in India and of ten years in the district. I do not think the deforestation has affected the rainfall or the cultivation to any serious degree. The annexed extract† from the Settlement Report will show that seasons were often remarkably unpropitious before the forests were cleared. The situation of this district is however peculiar, being immediately behind the high ranges of the Western Ghats which turn the rains, and the rainfall has always been very scanty.

As regards the supply and permanence of water in the streams, the people all say that the streams run dry much sooner now than they did formerly.

The deforestation and the clearance for cultivation of the waste lands (scrub or grass) has considerably diminished the grazing ground of the people, and they have in consequence to send their cattle further in the hot weather. The supply of firewood is also diminished, and in consequence straw and cowdung are burned, that ought to be put in the soil. No attempts at *reboisement* have been made in any systematic manner.

As regards *reboisement*, the subject must be considered, first, with reference to the Government jungles on the outskirts of cultivation; and secondly, with reference to the formation of village jungles.

With reference to the first subject, I consider that a limit should be put to the extension of cultivation, and that all the existing forests should be reserved, either as "close reserves" or as "protected forests," and that the people should be made to look to improved methods of agriculture on existing holdings to increase the supply of food-grains. In this district a large proportion of the ryots are men of no substance, are quite unable to permanently improve their lands, and have to cultivate them almost every year allowing but little land to lie fallow. The sooner the land falls into the hands of capitalists, and the present occupants become agricultural laborers the better will it be for the country. By allowing Government waste scrub or forest lands on the outskirts of cultivation to be taken up we afford an outlet for the increasing population and perpetuate the existing evil of small holdings and pauper landowners and no fallows, while we permanently destroy the fuel and grazing grounds of the district. I consider therefore that all the existing forest or scrub land should be reserved and that no extension of cultivation should be allowed therein, and that when not closely reserved it should be worked on the block system and grazing allowed therein under the same system. No grazing whatever should be allowed in the "close reserves" and fires should be prohibited on both classes of forests. As regards the

* Omitted.

† Pages 17 to 19 of Mr. Clogstoun's Settlement Report.

Mr. McC. Webster—continued.

grazing grounds in these localities (outskirts of cultivation), it is perhaps necessary that they should be retained, but I consider that the grazing in such places should be discouraged as much as possible, as it should be our endeavour to get the people to allow their lands to lie fallow and to graze their cattle on them. At present the cattle of very many villages are kept in the hills and forests all the year round and are only brought down for cultivation when required, and are sent back as soon as the work is over. The manure is not collected and, indeed, if it were, could not be brought down, and in consequence is lost to the soil. What a loss this is, is apparent from the figures given in Mr. Robertson's Report for 1876-77, page 98 *et seq.*, and I consider that Government should use every means in its power to prevent the ryots from thus recklessly impoverishing the soil. I would therefore, if grazing is to continue to be allowed, charge a high fee per head of cattle grazed in Government forests and hills. This will have the effect of compelling the ryots to find grazing for their stock on their own fields and the manure would not then be wasted. This subject, however, more properly forms part of the answer to Question 7, and I only allude to it here to show one of my reasons for more strictly reserving the existing Government waste lands, giving them an opportunity of natural reproduction, and of preventing the increase of pauper cultivation. As regards village jungles, I consider that Government interference is urgently called for. Government have afforded the people of this country security for life and property—the increase of population has therefore been very great and it will continue to increase—and Government should, therefore, I consider step in and with legal sanction require the people to do something for themselves. I do not think it should be a question of interference with vested rights, these rights should give way to the general good; and if the people will not help themselves they should be compelled to do so. One very important matter is the formation of village topes to afford a fuel supply and grazing ground for the village. I consider that a plot of land should be selected in every village and that the villagers should be compelled to plant and keep up a firewood reserve therein; each landholder should be compelled to give labor or its equivalent in money, and the management of the plantation and the future use of the firewood should be in the hands of a village committee or punchayet. It would not be difficult to frame rules for giving practical effect to this proposal, the only preliminary being a legal enactment compelling the people to form and keep up the reserves. The grazing fees levied on cattle sent to the Government hills and forests might be ratably distributed as a grant-in-aid to the village committees.

Mr. Horsfall.

There has been a gradual and progressive denudation of forest. The testimony of all officers is unanimous on the point. It is a fact within the personal knowledge of every official of any service in the district. Formerly the Government ryot was not allowed to cut the trees on his puttah lands, but this restriction was withdrawn some years ago, and within my own knowledge many valuable trees, such as tamarind and mango, were cut down and sold. In some instances lands were taken up temporarily for the sole purpose of cutting the timber thereon, and as soon as this object had been effected thrown up again. This disastrous procedure has been checked to some extent by the rule that applicants for fresh lands have to pay the value nominally of the trees standing thereon. The rule is good as far as it goes, but is, I fear, very generally evaded. There are no statistics showing

Mr. Horsfall—continued.

the extent of forest or scrub jungle which has been cut down. Such lands were entered in the old accounts as Porumboke. Up to the time of the recent survey, the area occupied by forest or scrub jungle was not ascertained; but there is no doubt that as cultivation has gone on increasing from year to year, the jungles have been encroached upon. Between Faslis 1271 and 1274 the cultivation of cotton increased from 100,000 to nearly 250,000 acres; the greater portion of the increase is known to have been jungle taken up for cultivation.

The difference in area under occupation in Fasli 1269 when the Kistna District, as now constituted, was first formed and that under occupation in Fasli 1287, amounts to nearly four lakhs of acres being fourteen and eighteen lakhs, respectively. So far as is known there has been no diminution in the rainfall. A rain register has, however, only been kept since the year 1852; nor has any alteration been observed in the abundance or permanence of water in the streams, wells, and subsoil. No noticeable denudation of soil has occurred. The soil is said to have deteriorated to some extent owing to cattle dung being used instead of firewood which has become scarce.

There has been no reproduction of forest.

The matter is of general importance, and I would have a special Forest Department and would conserve all existing jungles and hills. This would be done most advantageously by conservation, keeping out cattle from grazing and prohibiting fires. So far as my experience goes, artificial planting, except under very favorable circumstances, has not been profitable. No doubt the right hitherto enjoyed of grazing at will throughout Government jungles would have to be curtailed to a considerable extent. But the object sought is the public welfare, and the blind, ignorant opposition of the people ought not to be allowed to outweigh the paramount importance of the step. I believe sufficient provision could be made to meet all just claims, and that the people would readily submit after a few years to a systematic course of conservation. Conservation would be the easiest and cheapest as well as most effectual method, but I would not entirely dispense with planting where advisable. In some tracts valuable timber trees might be grown in the place of existing trees of no value. Planting without strict conservation would be of no use whatever. The extent of existing jungles is estimated at 579,000 acres.

Rev. Mænnier and others.

Unfortunately the idea that destroying the forests injures the condition of the country is unknown to the people here. The devastation of forests is therefore going on under our eyes perpetually. Not only are the tracts extremely numerous where plants are struggling to grow up into trees and are kept under systematically continued destruction, so that since 20 years they have always offered the aspect of a low mutilated bush, which even is a characteristic feature of the landscape, resembling patches of heather; but we know also of several places where 10 or 15 years ago regular woods with fine stems and undergrowth were standing, whilst now everything has been cut down to the shape described above. This destruction of forests is not only carried on for the sake of firewood, but chiefly for the sake of obtaining litter for the cattle, as straw is used for other purposes.

The leaves of the soil of the forest being collected for the same purpose the injurious effect is still more increased. One of the consequences is the great want of firewood in some parts, which

Rev. Mænnier and others—continued.

again takes its revenge on agriculture by causing cowdung to be burned as fuel.

About the effects of this denudation we have many surmises, but it is difficult in the individual case to argue the point conclusively. We see hill sides in which the subsoil dries up so very quickly that we think it would not be possible if there was a forest. We see deep ravines hollowed out by short water-courses, as, in some cases at least, it would not be possible, if there were trees or at least shrubs and especially leaves, ferns, &c., on the ground. Concerning the sudden rush and quick falling of water which is so very characteristic in the rivers of our district, we are inclined to attribute it at least partially to the same cause. We see places denuded of soil where the environs suggest the idea that these places have lost their soil only in consequence of losing the growth of bushes which on the same tract further on are still in the process of being extirpated, whilst still further on patches which are protected by walls have bushes, trees, and good soil. Forsaken paddy fields and forsaken wells in higher sites are perhaps in this condition, in consequence of a drying up of former moistness.

In several instances we have seen, partly by experiments of our own, that on nearly denuded places forest can be reproduced simply by drawing a wall round to the tract, i.e., by protecting the tract from further vandalic destruction; in which case, however, we were obliged to take separate measures against the periodical burning of grass. We have also seen quite barren places planted with numerous trees and shrubs and in consequence thereof a new soil collecting or the old soil improving very much. We see one instance before our eyes which demonstrates that the sandy sea-shore can be changed into a forest. In one or two cases we have tried to stop the downward rush of water by horizontal ditches on the hill side.

Without daring to enter on the question, whether more forest would not produce fever, we yet think that it would be a great benefit if, firstly, the tops of hills, secondly, the sandy sea-shore, would be covered with forest, either by simply protecting the tract or by planting certain trees which are particularly suited for the purpose.

Lieut.-Col. Beddome.

With reference to paragraph 23, Chapter I, of the circular published in G.O., No. 1374, of the 5th August last, I have the honor to forward answers received from the Forest Officers of the Districts as per margin.

The denudation of forests for actual cultivation, paying assessment, has not been very great during the last twenty years as I have ascertained from reports received from the Collectors and Forest Officers of all our districts, and it is of course very much greater in some districts than in others. In Wynad it is said to be 22,526 acres, and it has been very extensive on the Nilgiri. In the face of railways and an ever-increasing population, it must of course go on extending, and there is still ample room for much extension though of course there must be a limit. Revenue Officers will be too anxious to open out the hill tracts of their districts and realise a revenue from the land, and can scarcely be trusted entirely with the question as to what tracts are to be reserved. This should in future be almost entirely under the Forest Department, who should be respon-

Lieut.-Col. Beddome—continued.

sible to Government that the water-supply of the country is not affected to any great extent. Unless this reservation be placed under the trained and responsible department the very tracts which it is most desirable to reserve will often be the first to be alienated.

Coffee and tea bushes will never protect the soil and water-supply in the way that forest does; the soil being constantly broken up is washed away and there is no accumulation of humus.

Coffee appears to be anything but a permanent cultivation, as shown by the long list of deserted estates in the Wynad.

The practice of felling and burning hill forests for temporary cultivation (Kumeri) is most injurious to the country and must sooner or later be put a stop to altogether. In some cases this pays assessment, but there is much carried on illicitly of which no returns could be forthcoming. Only two or three crops (sometimes only one) are taken off the ground, which is then deserted and reverts to jungle but only again to be felled and burnt after a few years, each successive growth being poorer than the one preceding it, till in time the tract becomes the merest scrub, or bare rocky ground with scarcely any soil. This I have seen exemplified in many of our districts; and for further particulars of the gradual process I would refer you to my report on the Jeypore Hill Forests (recorded in G.O., No. 2521, of 17th August 1877), and to my last Report on the South Arcot Forests (G.O., No. 1189, dated 29th July 1878).

Mr. Ferguson, the Forest Officer of Nilambur, explains the process of forest gradually turning into the poorest scrub, and he states that 4,000 to 5,000 acres are thus destroyed annually in Malabar.

Messrs. Peet and Morgan, the Forest Officers of Coimbatore and Wynad, state that Kumeri holdings are often not the *bona fide* property of hillmen. They often belong to well-to-do ryots and merchants in the plains.

Apart from the question of the inroads of cultivation and the destruction of forest by felling and burning for temporary cultivation, there is the fact that almost all our dry deciduous hill forest tracts are rapidly deteriorating before armies of goats and cattle, constant fires, and the un pitying axe and bill-hook of every goatherd or cowherd. The jungles and grazing-grounds below the hills and often on the slopes have of late been cleared for cultivation, and the people now invade our mountain forests. This is a far more important question than either of the others, and cannot be grappled with except through a Forest Act. Cattle-grazing beyond the jungles or forests of village limits must be taxed, and under the supervision of this department, so that the graziers can be punished if they take axes or bill-hooks into the forests or light fires. Grazing must be restricted to certain tracts, and large tracts of forests must be reserved against it and fire, or only be open by blocks in rotation as can be arranged under scientific and systematic management.

Our forests are still vast, and it is not too late to introduce systematic conservancy which can only be accomplished with the assistance of an Act and strict rules; but the destruction has been rapidly increasing year by year since the introduction of Railways, and there is not now much time to be lost. Unless we shortly have a Forest Act and a regular system of reservation I feel certain that another two or three decades may materially alter the climatic conditions of many of our districts.

The Forest Department has only been in existence twenty-two years, and for its first decade or more it was only a department for

Lieut.-Colonel Beddome—continued.

the collection of the revenue from the forests belonging to the State. Of late years the more important questions connected with the upkeep of forests have attracted much attention, but the department has been, as a rule, utterly unsupported by any of the Revenue authorities; the native officials particularly have been in every way opposed to it, and have thwarted it in every way as they have suffered much in pocket and in influence by its introduction, and its rules have in every district, it is feared, been more honored in their breach than their observance.

It is possible that Government might deal with the State forests without the introduction of an Act, but even this is very doubtful. There are however vast tracts of mountain forest belonging or supposed to belong to private individuals, the upkeep of which as forest land is absolutely necessary in the future unless the water-supply and climate of the country are to be seriously tampered with and to deteriorate year by year. Government must be in a position to say that certain mountain forests, steep slopes or ravines protecting the water-supply must not be destroyed, that they must be treated as forests, *i.e.*, worked only to their reproduction, but not be cut down or burnt, whether they belong to Government or to private individuals.

The protection of every mountain stream is of more or less importance, but I may just mention two or three all-important questions which, if they do not receive attention very shortly, may bring much ruin on the country.

The magnificent evergreen forests protecting the slopes of the ghats in the Tinnevely District are now threatened with destruction for coffee; in fact the destruction has already commenced. Vast tracts of these are now acknowledged as the property of Native Zemindars, and if their clearance is effected the Tamraparni river will suffer considerably. Tremendous floods and corresponding droughts must be the result and the district may be ruined. It will only be the work of time.

The vast evergreen forests on the mountains between Coimbatore and Manar are now threatened with destruction for coffee, &c. These protect the sources of the Bhavani river, and their destruction would seriously affect that river. It is not known whether these forests belong to Government or to a Malabar Nair who has lately claimed them.

The splendid evergreen forests on the mountains at the south-east end of the Cumbum Valley protect the sources of the Vaige and Shurli rivers; if these were destroyed it would bring ruin on the Madura District. Large tracts of these belong to the Gantamayaknur Zemindar, and some belong to this Government; but it is believed that Travancore disputes the right to portions of the "highway"—a most important tract with reference to the water-supply of the Madura plains.

The forests on the Nilgiri, Wynad, and Coorg have been rapidly disappearing, during the last ten or twenty years. If this destruction is allowed to go on the Cauvery river must in time be seriously affected. There are still vast tracts of forest, and many splendid forest-clad ravines protecting numerous streams, but what if they all go? And if there is no legislation on the subject and no official reservation to be guarded by a responsible department what is to prevent it? At the present rate of destruction there would be probably nothing left in another century or less.

Collectors can furnish returns showing the amount of forest-land cleared for cultivation and paying assessment during the last twenty years or so; but this will not show the numerous tracts illicitly felled for hill cultivation, and no returns can represent the vast tracts of forests naturally deteriorating by reason of unrestricted grazing without supervision and fire.

To obtain any reliable specific facts as to the mischief caused by deforestation would require observation and data collected for a long series of years. The Forest Department is only of very late introduction into most districts, and little or no attention has ever been given to questions of this nature. The Revenue authorities seldom remain more than five or six years in any particular district, and they very rarely go into the mountain forests, or know what is going on in them. It is rather to other countries where statistics have been collected for many years, and where the forests have been allowed almost entirely to disappear (which is anything but the case as yet in India), that we must look for facts of this nature. The numerous books now being published on Forestry and kindred subjects in Europe and America are full of statistics of the mischief caused in many comparatively temperate countries by the destruction of mountain forests. Can it be doubted that the same destruction can go on in a tropical country like India without similar results? Considering our vast tracts of forests and our splendid chain of ghats and isolated blocks of hills it must be slow but it will be equally sure.

Mr. Turner, lately Assistant Agent on the Jeypore Hills, with only a four or five years' experience of the district, spoke to the drying up of streams caused by deforestation. Major Jago, the Officer in charge of the Nilgiri, and Mr. Morgan, lately in charge of North Coimbatore, speak to similar facts in their letters now forwarded. The clearing away of forests protecting a spring or head of a stream almost always dries it up, and the denudation of the forests protecting the slopes of ravines down which it runs seriously affects it, causing a great rush of water after heavy rain and corresponding diminution at other times. These facts are too patent to require proof, but can be established by most Forest Officers. To illustrate the ill-effects of deforesting steep mountain ravines I could mention nothing more appropriate than the Coonoor Ghat Ravine, the approach to the Nilgiri from Mettapolliem. I have been up and down this many times nearly every year since 1857 and watched the gradual destruction of the forest, trying hard to stop it, but with what result is very evident although Government have passed several orders forbidding the clearance of the forests (this is the result of forests being under the Revenue authorities instead of the Forest Department, and no one of course being responsible as the Revenue authorities are constantly being changed). When I first knew it, the ravine was all forest clad, both sides, and in the heaviest rain there was no very apparent wash of the soil, no land-slips or rolling-boulders, and the rivulets feeding the river down the centre of the ravine all running tolerably clear. Now the north-east slopes or the slopes above the road have been almost entirely deforested, and it is quite dangerous to go up the ghat during very heavy rain, which often occurs in October, November, and the beginning of December and sometimes in May. Boulders of rock of various sizes from several cwt. to 100 tons come rolling down rendering the old and new ghats impassable and destroying the bridges, and the soil in many places pours over the road like lava, and the water in the streams is of the consistency of cream. Most of this deforested land has been planted with coffee, and many people would argue with advantage to the

State; but the Forest Officer says steep mountain slopes like this must be protected from denudation for coffee as it is utterly impossible that the soil can last very long. The forest has now been replaced by coffee, and in the future coffee will be replaced by a rocky barren mountain slope with no trees or cultivation of any sort, and the State will then say how improvident our ancestors were. Tree-planting will then be too expensive, and though in the course of time protection and conservancy might even then cause the *débris* of grass and weeds, &c., to form a soil which in time would produce jungle and eventually forest, this would in any case be the work of centuries and perhaps in the face of such a rainfall impossible even to the length of time. Deforestation on the other slopes of the same ravine has now commenced. I mention this particular ravine as one with which most people in this Presidency are acquainted, and the mischief brought about in which has been noticed by many even casual observers. The same results, however, are occurring in all other steep ravines brought under the same treatment.

Artificial reboisement by planting on our mountain slopes and hills will be far too expensive, and we have not yet arrived at a stage when it may be said to be necessary. Natural reboisement by reservation of tracts against goats, cattle, and fire is all that is necessary, but to effect this a Forest Act is necessary and Forest Officers must have more power.

No forest conservancy could probably be effected with the consent of the people if they were consulted. They of course cannot be expected to think or care about the future. Present profits and present comforts and privileges are all they think of. It is the State that must take care of the future, and legislate so that the introduction of railways, an ever-increasing population and cultivation are not allowed to bring ruin on the country at a future date even though that date may be a distant one. It is difficult to say what the vested rights of the people are. They have never been defined and are for the most part only privileges which can be regulated or restricted by the State as circumstances require, and which, if not so regulated and legislated for, must rapidly disappear altogether as forests will cease to exist without systematic management and many restrictions. It is calculated, however, by this department that in most districts one-fourth or one-fifth of the hill forests might be strictly reserved without much undue interference with present privileges. Every year however will make the question a more difficult one. The sooner it is grappled with the better. It is with the private proprietors of forest that there will be the greatest difficulty. They of course will look to immediate profits, and if by cutting down or selling a forest they can realize a revenue, they will care nothing what may occur in the future from such action. This is a subject that can only be touched by special legislation.

QUESTION 24.—Can any estimate be made of the number and proportion of deaths, which are the inevitable consequences of famine, not being due directly to starvation, but to such privations as adults in health can bear with safety but which prove fatal to children or the old and sickly, or to such diseases as follow in the train of famine from eating unwholesome food, roots, berries, leaves, &c., or arise from other and obscure causes like cholera and fever commonly concomitant on famine? What statistics exist as to past famines to show the depopulation that they have caused, and how far it is due to an increased death-rate, to emigration, or to a decreased birth-rate? If any special census was taken after the famine, state whether any trustworthy information was

obtained as to the different classes of population which have suffered most; whether the early stages of a famine affect certain classes more or less severely than its later stages; whether the loss of life has been greater among males or females, among adults or children; to what extent the birth-rate has been affected; and how far local influences, peculiarities of administration, or tenure, climate, soil, water, density of population, systems of cultivation, &c., have tended to mitigate or intensify the inevitable effects of scarcity.

Sir W. Robinson.

Is practically answered by the Famine Census. But census of the 1881 must be awaited to enable estimates to be formed as to the incidence of famine as respects classes, ages, &c. I venture to submit to the Commission two Minutes recorded by me, under dates 27th May and 14th October 1878, on the Famine Test Census taken in March last.

Mr. Grose.

I am collecting statistics about the deaths which occurred during the famine, but have no information before me now which enables me to answer these questions. A special census was taken in one taluk (Gudur), but no attempt was made to distinguish between classes of the population or to elucidate the other points raised in this paragraph. From the figures I gather that the percentages below the estimated amount of the population found by adding an annual increment of $1\frac{1}{2}$ per cent. to the figures of the census of 1871 are—

Males above 10—19 per cent.

Do. 10 and below 32 per cent.

Females above 10—14 per cent.

Do. 10 and below 31 per cent.

My own observations lead me to believe that the classes which suffered most were the pariahs, chucklers, yanadies, the laboring classes.

Famine was certainly alleviated to a greater extent in ryotwari tracts than in zemindari tracts.

I think the only way to form an idea of the number of deaths which must be ascribed to famine is to calculate what the population would have been if there had been no famine, and take the difference between that theoretical number and the actual number found to be in existence after the famine as attributable to it.

Mr. Price.

I do not consider that it is possible to form any accurate estimate such as that alluded to. There are no statistics excepting accounts of deaths in poor-houses which would give the causes of decease. These might give one some data upon which to work; so would the register of deaths for a period embracing an average of, say, five years before the famine, compared with those of the famine period, but still these could not be taken as absolutely accurate. Cholera and fever might be gauged with moderate correctness, but even then it would be difficult to separate deaths really caused by cholera from those resulting from famine diarrhoea. I have seen cases of the latter which strongly simulated cholera, and I feel sure, too, that the police and village heads often put down to cholera or fever starvation cases, as they knew that, if they admitted or recorded evidence of the real cause, they would get into trouble. How far death arose from unwholesome or insufficient food it is utterly impossible to calculate. It is possible to say that one period as compared with another exhibits a very great increase in the death-rate, and as it is known that this increase took place as famine grew in

Mr. Price—continued.

intensity, to derive the assumption that the major portion of this increment was the result of the existing distress; but it is entirely beyond the power of any one to divide the deaths amongst the many causes arising from famine; that is to say, that so many were attributable to acute starvation, so many to chronic, so many to bad food, and so on. There are no statistics of past famines in this district which would show their effect on the population. The last great famine was in 1833, and I have often heard from natives and officers who were senior members of the service when I entered it that the mortality was then frightful. A special census of one taluk of the district (Poneri) was taken in March last, but this was merely a numbering of the people, cattle, and houses, and, beyond showing that, as compared with the census of 1871, there were so many persons, cattle, and houses the less, no information is obtainable from it.

Mr. Pennington.

I see no use in attempting to draw an impossible distinction between the case of those who died directly for want of food and of those who died of diseases directly induced by deficient or improper food. Death in both cases was, in fact, the consequence of insufficient nourishment or, in other words, starvation. No census has been taken of the famine tracts.

Mr. J. G. Horsfall.

In this district almost no deaths were attributed directly to famine. The total number of deaths registered since June 1877 of persons receiving relief amounts to 620, but the return does not distinguish between adults and children, male or female. The mortuary return of the last five years, Statement No. appended, goes to show that mortality was pretty equally distributed between males, females, and children. If any thing, the mortality was greater among males than females. The excess of deaths in the years 1876 and 1877 may be fairly attributed to the usual concomitants of famine.

Vide answer to Question 2 as to the effect of the great famines in the years Nandana 1832-33 and the previous one of 1791. No special census appears to have been taken after those famines. The taluk of Gudivada, for which a census was taken this year, was essentially a non-famine taluk, and, as might be expected, showed an usual increase of population owing chiefly to immigration from less favored parts, and partly no doubt to the increased area brought under ancient irrigation in recent years. The Gudivada Taluk was exceptionally prosperous. The census, therefore, taken for this taluk cannot be accepted as any criterion of the district generally. But for the ancient irrigation, the Gudivada Taluk might have been as bad as the Narsaraopett and Vinukonda Taluks where distress was most felt.

Surgeon C. J. Macnally.

Assuming that "starvation" in the first question of this paragraph means death from *acute* starvation, or, in other words, complete or almost complete deprivation of food, I think that a tolerably accurate estimate may be made of the number of deaths caused by famine. Such an estimate may be found either upon (1) the usual mortuary Returns or (2) a census.

It appears to be taken as an axiom in this question that "such privations as adults in health can bear with safety, but which prove fatal to children or the old and sickly," are frequent in time of famine.

Surgeon C. J. Macnally—continued.

It is undeniable that such privations may, and sometimes do, occur; but conditions and degrees of privation are so various and so difficult to gauge and to classify that it must be impossible to recognise in practice such fine-drawn distinctions. Conditions which healthy adults may bear without detriment, but to which the young, the old, and the sick must succumb, are conceivable, but practically they do not occur in famine. Not physiologists alone, but most men who have had practical experience in famine administration, must have observed that privations which kill children and the old and sickly in large numbers cannot be borne in safety by healthy adults.

At the period when the mortality of the aged and of children has become alarming adults invariably suffer, although to a lesser extent.

In the famine districts deaths beyond the usual number attributed to dropsy, debility, anæmia, diarrhœa, dysentery, and ulcer should be put down as the more or less direct result of famine. It is evident that insufficient or improper food also predisposes to the reception of, and increases the mortality from, other diseases, such as fever and cholera.

I believe that not a few of the deaths attributed to cholera were due to "famine diarrhœa." I have seen cases of diarrhœa or dysentery, both in poor-houses and at relief-works, put down as "cholera" by Hospital Assistants and others.

It would not be correct in my opinion to attribute to famine *the whole* of the excess of fever mortality. There can be no doubt that many fell easy victims to fever owing to their half-starved condition, but at the same time it must not be forgotten that when rain comes after a long drought fever is apt to be unusually prevalent and virulent.

These remarks have reference chiefly to the conclusions deducible from mortality returns, but the registration of deaths has not been perfect; therefore an estimate founded on such returns can be quite reliable.

The experience of poor-houses, however, when deaths were carefully recorded is of great value because it demonstrates that diseases directly resulting from famine were very common and did cause enormous mortality. This experience goes far to prove the correctness of the *prima facie* inference that the actual mortality from famine is correctly represented by the loss of population (allowing for natural increase since last census) demonstrated by the census recently taken, by order of the Government of Madras, in certain parts of the famine districts.

If from the results of this census deductions be made on account of (1) unusual mortality from cholera and small-pox, (2) diminution of the number of births during the famine, and (3) emigration, we shall have as true an estimate as can be made of the number of deaths due to famine—

(1.) Mortuary returns of doubtful accuracy afford the only guidance for estimating the mortality from epidemic disease, but it is certain that a considerable proportion of the actual mortality from this cause was the indirect result of famine.

(2.) Besides the ordinary not very perfect returns of births, the Sanitary Commissioner has been furnished with statistics of the number pregnant among women receiving relief. Among 18,779 women inspected by me 274 (1·459 per cent.) were pregnant. The diminution of the number of births during the famine must sensibly lower the estimated increase of population since last census.

Surgeon C. J. Macnally—continued.

(3.) The effect of emigration might be disregarded. It must be very small indeed, for the arrival of wanderers from other places compensated for the loss of population due to persons leaving their homes. There is reason to believe that the greatest mortality occurred among wanderers. Emigrants to the Nellore Canal had been sent to their homes before the census was taken.

Rev. Chester.

"To what extent the birth rate has been affected?" My own observation during the famine in that part of the Dindigul Taluk with which I have most to do leads me to note the marked difference in the number of pregnant women. I noticed this fact also in the Dindigul relief camp during the eleven months it was in operation, and where there was a total of 6,903 different women. In the lying-in hospital at Dindigul, where those from the town are the principal admissions, there was a smaller number received than usual, but the difference was not so marked as in the case of the trained native midwife from the Dindigul Dispensary who has been for some years working in the villages near Dindigul. During a period of one-and-a-half years, when the distress for food was most marked, the total of her cases fell off to about quarter of the usual number. A marked case of the effect of the famine upon women presented itself at the Dindigul relief camp on the day Dr. Cornish visited the camp. A young woman, about nineteen years of age, who had with her in the camp a child four years old, which she had brought up on her own milk, attracted our attention from the fact that there was hardly the appearance of breasts. In her case there was almost an entire absorption of the mammary glands as in the case of an old woman.

Surgeon Lancaster.

I do not consider that any safe estimate can be made of the number and proportion of deaths which are the inevitable consequences of famine not being due directly to starvation.

The secondary effects of privation and want are very serious; they induce diseases most intractable in their nature; they lower the constitution and impair the vital powers, and predispose to various diseases of the respiratory and digestive organs. I cannot form any exact estimate of the deaths from these causes, but my experience in the civil hospital, jail, and relief-camps plainly shows me that the deaths from these secondary causes are disastrously large. Fevers and ulcers are more common in the famine districts than in others, and the number of deaths from these causes is proportionately large.

Dr. Cornish.

This question in regard to its first clause cannot be clearly answered. An attempt was made by the Orissa Famine Commission to obtain the mortality under two heads—1st, deaths directly due to famine; 2nd, deaths indirectly due to famine—but the failure was complete.

The registered causes of death are not in any degree trustworthy, but this much is certain, that in the famine areas the people died (in round numbers) in three times the proportion they did in non-famine districts during the year 1877. I have shown in my annual report for 1877, and illustrated by diagrams, that there was a very close correspondence between prices of food and mortality in the famine area, and as excessive mortality was confined to the famine area, or districts bordering thereon to which the people fled for help,

Dr. Cornish—continued.

there can be no reasonable doubt that the excess mortality was famine mortality and nothing else.

The use of the term “starvation” in this question is not clear. There are two distinct forms of starvation recognized by all authorities—“acute starvation,” where persons are deprived for a time of all nutriment whatever; “chronic starvation,” in which the daily food is insufficient in quantity or quality for the repair of the daily waste of the body. Acute starvation is a diseased condition admitting of relief if the victims are seen in time and judiciously treated. “Chronic starvation,” which has continued so long as to cause severe bodily wasting, is practically beyond remedy. It is the latter form of starvation that famine administrators have to deal with. Owing to a want of precision in description, non-professional persons have generally confused the results of the two forms of starvation. They have noticed that coal miners shut up in the works or shipwrecked mariners have recovered after being totally deprived of food for several days, and it has apparently been surmised that partial rations of food continued for weeks and months could be borne by the famine-stricken with impunity. History and physiological science give no warrant for such an opinion. In applying the term “starvation” in connection with famine, “chronic starvation” is always implied. This form of the disease is so much the worse than acute starvation that in the one case food judiciously given will restore health and strength, while in the advanced forms of the other the most costly of nutritious dainties are powerless to restore vitality. I have commended elsewhere on the want of precision in the use of the term “starvation.”

I am not aware of any experience showing that adults in health can bear food privation “with impunity” which prove fatal to children or the old and sickly. My personal experience went to show that in the early period of the distress the earliest victims were the old and the young of the laboring people. But, as these classes are not bread-winners, the probabilities are that they were the first to be stinted in their daily food. As the distress increased and the food became more difficult to procure, the adult men and women broke down just in proportion to the degree of privation to which they had been exposed. All that can be safely stated in regard to the superior endurance of adults is that, having a greater stock of vitality than the old, they necessarily can hold out for a somewhat longer period under an equal amount of privation, but our jail experience altogether opposes the notion that even as regards these classes they can bear “chronic starvation” for prolonged periods with impunity. At page 81 of my report for 1877 is given a table showing mortality of the general population according to age, and it will be seen that the proportion of mortality of children from one to six years had increased from twenty-nine per mille in 1876 to fifty-eight in 1877; of children from six to twelve years, from eleven per mille in 1876 to thirty-two per mille in 1877; of adults from twelve to fifty years from sixteen per mille in 1876 to forty per mille in 1877; and of old people above fifty years from sixty-seven per mille in 1876 to one hundred and sixty-six per mille in 1877. Of all these classes of the population the proportion of increased mortality was lowest in children under six years of age. This I suspect was owing to the decreased population of young children from diminished births.

This clause of the question assumes as a fact that adults can bear a greater degree of privation than the old and young, but the experience of the famine and an analysis of the proportions of the popu-

Dr. Cornish—continued.

lation returned as dying at various ages in 1877 does not entirely bear out the assumption.

In my opinion it is only fair to debit all excess of mortality in famine areas beyond the ascertained mean of ordinary years to famine either as directly or indirectly connected with failure of food supplies. It is quite impossible to draw any line and say “this is a famine death pure and simple,” and of another “this is a death indirectly due to the famine.” Famine brings about so many abnormal conditious, *e.g.*, bad water, bad housing and clothing, promiscuous herding of the people on works, and exposure to communicable disease, that no one, however desirous of arriving at the truth, could satisfactorily classify the mortality in the way suggested. Thousands of persons, for instance on relief works, fell victims to cholera, small-pox, and fevers, who, if they had remained in their own villages and in their own occupations with an adequate allowance of food, would probably have been alive to this day. Famine means agglomeration of the population under peculiar insanitary conditions as well as dearth of food.

QUESTION 25.—If no such census was taken, state what information is to be got from the mortuary returns for the period embraced by the last famine in your province as compared with those for ordinary periods, and what conclusions may be drawn from those returns.

Mr. Longley.

No special census was taken after past famines (*vide supra*). The decrease indicated by the recent census with reference to the present famine must, I think, be set down mainly to deaths. Emigrants and wanderers to other districts do not, I think, bear any considerable proportion to the total. I am trying to get some reliable information in reference to the numbers who left the district in search of employment and the numbers that have returned and the reason of the others not returning, and will forward this later on. The deaths as reported in the mortuary returns were as follow:—

During the famine of 1877, from December 1876 to	
February 1878	1,97,951
Average for fifteen months	59,002
	+1,38,949

Mr. Pennington.

It appears from the mortuary returns of the past eight years that there were only 26,289 births registered in 1877-78 against an average of 34,251 for the previous three years, or a decrease of 23 per cent. The deaths, on the other hand, reached 70,701 against 45,092 in the previous year, and an average of 30,832 *excluding* these two bad years. It is impossible to doubt that both the falling off in births and the great increase in the death-rate are due to insufficient nourishment, and it is interesting to observe that, whilst the death-rate was abnormally high every where, the falling off in the birth-rate was most conspicuous in the most distressed taluks as shown below.

BIRTHS.

Taluks.	1876-77.	1877-78.	Percentage of Columns 3 to 2.	
1	2	3	4	
Ambasamudram	2,852	3,398	+	19
Tenkasi	2,475	2,691	+	8
Tenkarai	4,710	4,332	—	8
Tinnevelly	2,021	1,840	—	8.9
Nanguneri	3,329	2,988	—	12.4
Sankaranainarkovil	4,758	2,869	—	39.7
Srivilliputtur	4,317	2,390	—	44.6
Satur	3,152	1,555	—	50.6
Ottapidaram	5,938	2,556	—	57
	33,552	24,619	—	26.6

DEATHS.

Taluks.	Average Death of six Years from 1870-71 to 1875-76 (both inclusive).	Deaths in 1877-78.	Percentage of Columns 3 to 2.
1	2	3	4
Srivilliputtur	3,206	10,404	325
Satur	2,813	7,765	276
Sankaranainarkovil	3,153	8,267	262
Nanguneri	2,944	7,490	254
Tenkarai	3,615	8,982	248
Ottapidaram	5,337	11,477	215
Tenkasi	2,274	4,605	202
Ambasamudram	3,176	5,080	160
Tinnevelly	2,642	3,574	135

Mr. Atkinson.

The following are the figures obtained from the mortuary returns for the period embraced by the last famine:—

Taluks.	Number of deaths from Nov. 1876 to Mar. 1878.
Badvel	8,027
Sidhout	8,507
Pulivendala	10,517
Cuddapah	11,989
Pullumpet	16,629
Jammulamadugu	9,146
Prodatur	8,055
Rayachoti	18,001
Kadiri	18,205
Voyalpad	26,517

Enclosed is a table* which, with the help of my Assistant, Mr. Rathnavelu Chetti, I have had prepared from the records of my office.

* Not printed.

The comparison which it institutes is one between the average of four years prior to the famine and the actual period of distress. As the sexes were not distinguished until four years ago, and as I wish to give as much information as possible upon the points raised in the question under reply, I could not for my average go further back than I have. The statement, it will be observed, refers to two periods, viz., one which embraces that from the commencement of the famine to its climax, and the other from the climax to the present time. Though it cannot be said that the birth and death returns are absolutely accurate, especially as regards births, I think that they may be held to be fairly so.

The statement affords the following conclusion:—

- (1.) That the famine in this district began to manifest itself in the month of December 1876 by a distinct increase in the death-rate and an equally distinct decrease in the birth-rate.
- (2.) That this effect continued and steadily increased until the month of August 1877, when the famine, as indicated by the death-rate, attained its climax.
- (3.) That the months July, August, and September 1877 were the periods of greatest distress.
- (4.) That the months of the first burst of the famine and its climax have produced in the periods during which children conceived in those months should be born a most marked fall in the number of births, thus tending to show that the periods of most marked death-rate corresponded with a general failing of physical strength in the population.
- (5.) That the number of deaths of males was greater than that of females, and that the disproportion was much higher than that observable in average years, and grew larger as the distress increased.
- (6.) That persons above the age of 40 were those who suffered most, that children came next, and that those in the flower of their age suffered least all through.
- (7.) That in March of this year the apparent effect of the famine upon the death-rates ceased, and that it may be remarked that the decrease of deaths was in the number of persons in the first period of life,—a fact which may perhaps be attributable to a smaller number of children having been born in previous months.
- (8.) That it has not been until the month of July that the births have commenced to balance and exceed the deaths.
- (9.) That the total increase of deaths from December 1876 to February 1878, inclusive, as compared with the average was 43,843, or 37,248 per mille per annum, and that the decrease in the number of births, up to the close of July, i.e., when the apparent balance was restored, was as compared with the average 15,823, or 10,146 per mille per annum.

It may be remarked, as regards the sudden leap taken by births in the month of July 1878, that July, August, September, and October are, in ordinary years, those months in which a marked increase in births takes place. This circumstance follows a law of which no doubt medical men have a ready explanation.

Mr. J. G. Horsfall.

The mortuary return referred to above shows that there has been a large increase in mortality during the past two years as well as decrease in the number of births. The excess and decrease of these two respectively may be fairly attributed to famine. For the two taluks Vinuconda and Narsarowpett this is shown as under :—

Taluks.	Average Number of Deaths per annum.	
	Ordinary Year.	Famine Year.
Vinuconda	911	1910
Population 64,508.		
Narsarowpett	1,375	3,000
Population 120,619		

Dr. Cornish.

There are no statistics of mortality of past famines. Although the periodical census-taking of the population from 1822 to 1871 indicates the effects of the famine of 1833-34 and of more local scarcities in checking growth of population. The subject as regards the famine of 1833-34 is dealt with in the accompanying paper marked C "influence of famine on growth of population").

In the special census taken after the famine in March 1878 no inquiries were made in regard to the social condition of the survivors. The object of the census was to test the actual losses of the population in regard to sex and age, and as shown in accompanying paper marked A (letter No. C-13, dated 20th June 1878,) the results showed a greater proportionate loss of males than females, by about five per cent. in the famine area and a greater disappearance of male and female children under ten years than above that age. The facts in reference to this question and also in regard to comparative loss of life in males and females, adults and children, migration of people and effects of famine on birth rates, are so fully discussed in the accompanying papers that I should only waste the time of the Commission by going over the ground again. I wish to add only this remark in regard to effect of famine on birth rates, that whatever may be the importance of the observed facts, I claim for myself whatever merit or demerit may attach to the originality of the observation.

The mortuary returns for this Presidency are shown in the annexed table month by month for a period of five years before the famine and throughout the famine period up to June 1878. The conclusions I draw from these returns are that in ordinary years they are imperfect and that in a period of general paralysis of village administration like famine, they are worse than in ordinary years. In several of our famine districts, notably in Madura, Nellore, Coimbatore, Bellary, Kurnool, and Cuddapah, the death registration did not fairly and truthfully represent the famine mortality. A table of birth registration is also appended, showing results separately for famine and non-famine districts, for a period of five years before the food distress, and continued down to June 1878.

Dr. Cornish—continued.

ABSTRACT of Births* registered in Madras Presidency, 1872—78.

14 FAMINE DISTRICTS.

Months.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
January	22,446	21,653	22,709	27,425	26,224	24,826	12,126
February	20,563	19,569	19,980	26,030	24,926	21,329	9,990
March	24,018	24,255	24,351	30,769	28,700	23,788	9,907
April	24,645	24,845	26,471	31,372	30,241	24,519	9,005
May	26,207	26,951	26,911	34,497	33,595	25,528	9,432
June	28,902	27,204	32,233	34,786	34,339	25,143	10,209
July	34,977	34,207	37,262	39,129	41,136	26,584	..
August	34,203	31,587	36,021	37,153	39,324	23,314	..
September	33,840	32,845	35,528	36,073	39,035	19,426	..
October	33,808	31,330	35,780	37,571	37,697	18,440	..
November	29,978	29,082	32,583	33,258	34,061	16,367	..
December	26,956	27,806	32,034	30,925	29,771	14,963	..
Total	340,543	331,125	361,863	398,988	399,049	264,257	60,669

7 NON-FAMINE DISTRICTS.

January	15,375	13,232	14,972	16,763	16,157	15,177	14,601
February	15,040	11,687	13,155	14,665	15,865	12,562	11,911
March	16,066	13,213	14,661	17,970	16,054	14,405	11,851
April	16,316	14,421	14,615	18,470	17,771	16,299	12,798
May	17,688	15,809	18,152	19,428	18,433	19,529	14,549
June	17,594	17,432	17,812	20,265	20,720	19,341	15,717
July	19,675	20,065	20,908	21,931	23,096	22,578	..
August	19,607	19,759	21,271	23,484	22,209	20,966	..
September	18,188	19,876	20,387	22,920	22,631	19,279	..
October	17,496	18,559	19,472	22,246	21,246	9,101	..
November	15,986	17,603	19,477	21,189	20,437	17,260	..
December	15,631	16,795	18,884	20,452	18,385	16,755	..
Total	205,231	198,451	213,766	239,785	233,061	213,150	81,427

TOTAL MADRAS PRESIDENCY.

January	37,820	34,885	37,681	44,188	42,381	40,003	26,727
February	35,603	31,047	33,135	40,695	40,791	33,891	21,901
March	40,084	37,468	39,012	48,739	44,754	38,114	21,758
April	41,161	39,266	41,086	49,842	48,012	40,818	21,803
May	43,895	42,760	45,063	53,925	52,028	45,054	23,981
June	46,496	44,636	50,015	55,051	55,059	44,484	25,926
July	54,652	54,272	58,170	61,059	64,232	49,192	..
August	53,810	51,316	57,292	60,637	61,533	44,310	..
September	52,028	52,721	55,915	58,993	61,666	38,705	..
October	51,704	49,889	55,252	59,817	58,943	37,541	..
November	45,964	46,685	52,050	54,447	54,558	33,567	..
December	42,587	44,601	50,918	51,377	48,156	31,718	..
Total	545,804	529,576	575,629	638,771	632,113	477,447	142,096

* Exclusive of births in the Zemindaries of Madura District.

ABSTRACT of Deaths* registered in Madras Presidency, 1872—78.

14 FAMINE DISTRICTS.

Months.	1872.	1873.	1874.	1875.	1876.	1877.	1878.
January	26,137	30,473	29,871	34,539	40,991	95,837	86,245
February	20,664	24,660	21,514	28,060	35,613	85,845	62,366
March	21,864	26,679	24,134	28,709	31,285	83,127	45,007
April	21,517	25,343	23,111	27,885	33,256	71,481	34,026
May	22,118	24,636	23,137	27,675	33,583	85,282	32,770
June	21,970	23,071	24,878	26,278	34,212	86,157	31,767
July	25,538	25,550	29,997	35,846	38,050	123,825	..
August	26,419	25,585	27,786	40,237	33,545	145,209	..
September	26,074	26,344	26,481	41,827	30,230	142,634	..
October	26,409	27,724	27,730	43,447	28,582	118,505	..
November	27,544	30,647	30,541	46,192	36,743	124,833	..
December	29,728	32,581	37,494	48,115	68,648	122,552	..
Total	295,982	323,293	326,674	428,810	444,738	1,285,287	282,201

7 NON-FAMINE DISTRICTS.

January	17,064	18,319	18,303	16,814	20,971	20,358	22,466
February	12,388	13,955	14,696	13,858	19,819	18,872	18,614
March	12,673	13,908	15,586	13,991	16,252	20,525	21,412
April	13,567	13,507	13,972	13,897	15,988	17,652	19,820
May	16,246	12,851	14,554	15,019	18,113	18,804	19,947
June	16,681	13,029	15,300	18,258	22,538	22,360	21,637
July	21,666	14,927	17,763	25,622	27,463	26,894	..
August	25,766	15,415	17,133	20,026	21,449	28,724	..
September	21,563	15,073	15,519	17,894	17,435	25,360	..
October	17,333	14,474	13,875	17,774	16,471	23,117	..
November	15,010	18,626	14,284	18,738	19,768	23,560	..
December	18,548	19,517	19,189	20,559	19,379	24,799	..
Total	205,500	183,601	190,174	212,450	235,646	271,025	123,896

TOTAL MADRAS PRESIDENCY.

January	50,201	48,792	48,174	51,353	61,962	116,195	108,711
February	33,057	38,615	36,210	41,918	55,432	104,717	70,980
March	34,537	40,587	39,720	42,700	47,537	103,652	66,419
April	35,084	38,850	37,083	41,782	49,244	89,133	53,840
May	38,364	37,487	37,691	42,694	51,696	104,086	52,712
June	38,651	36,100	40,178	44,536	56,750	108,517	53,421
July	47,204	40,477	47,760	61,468	65,513	150,719	..
August	52,185	41,000	44,919	60,263	54,994	173,933	..
September	47,637	41,417	42,690	59,721	47,665	267,994	..
October	43,742	42,198	41,605	61,221	45,053	141,622	..
November	42,554	49,273	44,825	64,930	56,511	148,393	..
December	48,276	52,098	56,683	68,674	88,027	157,251	..
Total	501,482	506,894	516,848	641,260	681,260	1,656,625	732,607

* Exclusive of deaths in the Zemindaries of Madura District did not fairly

A table of birth
tely for famine
before the food

Question 26.—It has been laid down by the Government of principle that local financial responsibility should be enforced in the as far as possible. With this view special taxation has recently been country, the proceeds of which the Government has proposed to apply assurance fund which will be available for the benefit of the people calamity of famine may actually fall. But it has been recognized that preferable if some portion of this taxation could be made more strictly its levy and its application to relief purposes. Can you suggest any it might be rendered practicable to provide that where State fun

expended on the relief of famine, such expenditure should be recovered from the locality which has benefited by it under any system of (taxation in modification of, or in substitution for, that recently adopted, and not in addition to it) in a manner that should bring into operation a sense of local responsibility, first in the direction of securing the lives of the people, and, second, of protecting them from unnecessary expenditure on relief? How could such a principle be applied to a smaller area than that of a Province or Presidency? Could the expenditure in a single district, or sub-division of a district, be recovered from that district or sub-division by such special taxation wholly or in part, or under any special circumstances, or in reference to any class of the community requiring relief, leaving a smaller or larger portion of the charge to be made good from the Province or Presidency at large, or from the resources of the Government of India? Could any plan be suggested under which, subject to similar limitations, a municipality might be required to bear the cost of feeding its own poor? What kind of special local taxation should be adopted for this purpose? What would be the probable effect (1) on the minds of the people, (2) on the temper of the officials, of the knowledge that the cost of famine relief expended on their behalf or by them would have to be recouped by local taxation? Is there any reason to suppose that the sense of local responsibility, if it could be brought to bear, would not operate beneficially in the case of relief of the distressed portion of the population in India?

Sir W. Robinson.

I do not myself appreciate the principle of a mutual assurance fund as applied to the financial exigencies of a tropical famine; the principle of a local poor rate seems to me more in keeping with precedent and circumstances. The moral obligation that a population must not be permitted to let its poor starve to death under any circumstances holds good in India as it does elsewhere. It is of course more difficult of administration here from the spasmodic and large proportions of the occasional demand for Poor Law aid; but it is not on the whole an impossible matter to meet it with some moderate success; either as respects the administration of relief or adjustment of the consequent poor rate burden. This is, as it appears to me, a matter of distribution. The poor in India get on fairly well under ordinary circumstances without taxational aid, and we do not need a regular poor rate as yet. But a famine comes and the accumulated obligation appears at once in a very aggravated form, and the additional burdens cannot be borne by the people while the calamity is running its course. The question seems to me to be:—How best to arrange for the recovery of the necessary expenditure. The collection of a practical poor rate by taxation in advance does not commend itself to my judgment; and always must I think be (as in the case of the license-tax) received with feelings of distrust by the people. I confess that I cannot devise a more practical solution of the financial matter than to advise that the Fisc advance the needful poor rate from the public purse as a local loan to be recouped with interest as the country recovers after the disaster has passed. I have stated my views on this point somewhat more fully in my answer to Mr. Ballard's questions. The mutual poor rate should be Provincial, and of course the necessity of repayment would have the usual effect on the minds of the people and of the Executive—and what is equally important; I think that there would be less anxiety on the part of the Fisc than has ruled of late. Do what we may famine-rescue must be costly and long protracted.

Mr. Stokes.

A very large proportion of the acute sufferers from famine in this district were non-workers. I do not conceive that any scheme

Mr. Stokes—continued.

throwing the local responsibility of insuring their lives on those that work will ever be recognized by the people as just. To tax classes already reduced to the verge of poverty by a famine in order to pay the expenses of relief will be to prolong the evils of want by delaying recovery. I do not understand the meaning of local responsibility for famine, as famine is a catastrophe arising from natural causes over which the sufferers have no control. To insure the poor against the results of famine will only encourage improvidence.

Mr. Grose.

I can suggest no means of recouping famine outlay by taxation in this district which would not ruin it.

Mr. Pennington.

I am inclined to think that the bulk of the famine expenditure in this district (if judicious) might always be recovered from local rates in time, excepting so far as it was applied to irrigation works which are Imperial, and on which there is scope of for an infinitely more liberal expenditure than they usually receive.

The case of municipalities is more difficult; but they have, as a matter of fact, done more (by private charity and otherwise) than support their own poor, and the only plan for providing for the swarms of sick and famine-stricken people who crowd into the towns at the advent of famine seems to be to let the municipalities provide for them (as they come) at the hospitals and debit the charge to Provincial Funds as has been done during the present famine. I do not think it is desirable at present to introduce any special form of taxation for the support of the poor.

Mr. Sewell.

With all due deference to the Government of India it appears to me that the principle of enforcing local responsibility for famines would press very hardly on the people if carried into practice. The very locality that had been exhausted by a famine would have the period of exhaustion prolonged by extra taxation, possibly until the next famine occurred, and would never recover from the effects of it. I say extra taxation, because I cannot see how taxation in modification of, or in substitution of, that recently adopted, and not in addition to it, can possibly raise any additional funds to cover the cost of a famine. Municipalities as a rule can barely make both ends meet, and it would be very hard to throw on them the expense of an object which was never contemplated in the Municipal Act. Supposing a plan of the kind hinted at were introduced, I think most probable result would be a larger increase in deaths from starvation.

Mr. Price.

The subject regarding which opinion is invited in is one upon which I do not think myself competent to speak. I had no time to consider the matter. I feel, however, that carrying out the system indicated would lead to much discontent, and ill-feeling.

Mr. Longley.

No. No part of the Presidency is capable of bearing the expenditure incurred in the relief of famine in that locality; and no taxation would bring the people to a sense of responsibility in either of the directions indicated in the The present taxation (The Madras License Tax) falls on those who do not benefit by the organization of the State relief in times of

Mr. Longley—continued.

for the tax is paid by traders while the bulk of the people seeking State relief consist of the majority of landholders (small in Salem) and laborers, and this I do not approve. Landholders in this Presidency are as much responsible for expenditure incurred on their account as in any other part of the empire, and as the ryots in the North-West Provinces have been taxed for the purpose, the ryots of this Presidency should equally contribute to what should form a relief fund in time of distress. I am aware that the ryots of the Madras and Bombay Presidencies were exempted from further taxation for the special reason that they have suffered from the effects of famine, and that it would be hard to burden them, irrespective of the recent famine, with fresh taxes. My proposal is to divert by legislative action part of the proceeds of the village service cess at present levied in the district to famine purposes.

Act IV of 1864 imposes a cess not exceeding an anna in a rupee on the assessment of lands held by Government ryots for payment of salaries of village establishment. The maximum rate of the cess is being levied (temporarily suspended) in this district. The proceeds of the cess amount to Rupees 1,68,000.

The village establishments which were formerly maintained exclusively from the percentage beriz deductions, which percentage is still continued, irrespective of the cess collections, have lately been revised and the number of Village Munsifs increased to such an extent that the smallest hamlet of only a few houses has now a separate Munsif, where before the hamlet was probably clubbed with the parent village. Nearly the whole of the proceeds of the cess has been appropriated to the payment of the new establishments in addition to the usual contribution.

I would propose a reduction in the cost of the village establishment sufficient to give six pies in the anna now levied for village cess to the famine fund; the efficiency of the establishment will not be impaired in any appreciable degree, and by this means a local poor fund would be established and the people of a district would support the distressed poor who are now inadequately supported for a time only where distress presses by promiscuous charity. The proceeds of such a tax in this district alone would be about a lakh a year. I deprecate most strongly any fresh taxation which would have a most injurious effect on the minds of the people who, I consider, are already sufficiently taxed with—

- (i) Land-cess and its accompanying cesses;
- (ii) The increased duty on salt;
- (iii) Municipal Tax, and
- (iv) License Tax.

I cannot say what the effect would be on the temper of the official mind, but as a payer of a fresh impost the official would in common with his non-official brother resent the imposition.

Mr. Horsfall.

The idea of local taxation to meet expenditure in times of famine does not seem at all advisable. Taxation should be general throughout each Presidency for the whole Presidency. No doubt taxation might be limited to each district, but the reasons against so limiting it are many and obvious. So also the expenditure in any division might be recouped by taxation from that division either in whole or in part, but this would be still more objectionable than limiting taxation even to a district. The resources of municipalities in this district would be totally insufficient to meet the strain thrown upon them by the necessity of providing for their poor in times of famine.

Chapter I.—Question 26.

[32]

• Mr. Horsfall—continued.

• Moreover it is to the large towns or municipalities that the starving people invariably flock in such times. If it is determined the municipalities should provide funds to meet such expenditure, fixed proportion of the revenue derived from the Professional tax should be set aside for the purpose. The imposition of a local tax would be very distasteful to the people of that locality. They would feel that having suffered already from causes entirely beyond their control, they were made to suffer twice over in being taxed. They could not but feel that the less Government had done for them the more they were called upon to pay. That their fortunate neighbors in the delta taluks, who had been provided with irrigation and the anicut would escape altogether; whereas they in the upland and poorer taluks, for whom no big irrigation works had been created by Government, would have to bear both the evil and the cost of meeting it. So strong would this impression be that many would emigrate to more favored localities. Officials would be deterred in a great measure from inaugurating works of any magnitude and would probably be too chary of expenditure.

It may not be out of place to observe here that but for the immigration of paupers from other districts, there would have probably been no necessity for extensive relief works in this district during the recent period of distress, and that the Bapatla Taluk where the chief and almost sole expenditure for famine works was incurred was to a great extent free from distress. Instead of direct taxation which is always unfavorably received I would impose indirect taxation, such as a tobacco monopoly and gun tax. These would meet with no opposition, would not press hardly upon any class of people and would, I think, suffice to meet the cost of periodical famines.

Mr. Melville.

Whatever may be the effect of recovering from a Presidency by special taxation State funds that have been expended on the relief of famine the attempt to apply the same principle to smaller areas, viz districts or portions of districts must, in my opinion, be attended with great injustice. For instance take Tanjore and the adjoining district of Madura, or the Godavari and adjoining district of Vizagapatam. Tanjore and the Godavari Districts are exceptionally favored by nature in means of irrigation. These natural resources have been largely extended and developed by liberal expenditure from State funds. To these natural advantages, improved as they have been by expenditure from Imperial Funds, these districts owe their almost entire immunity from famine. The districts that adjoin them, Madurai in the former and Vizagapatam in the latter instance, are much less favored by nature, and the expenditure in them of Imperial funds has been very much less. Both districts are liable to suffer from famine. Nothing to my mind could be more unfair than to specially the less favored districts to recoup expenditure incurred in famine relief while the neighbouring districts which escape famine owing to expenditure from the same source are left untaxed. An attempt to apply the principle to portions of districts would be more glaringly unjust. As to the effect on the minds of official people, I am of opinion that such a course would be productive of universal and justifiable discontent. The impolicy of Government in stepping in not to alleviate but to perpetuate and intensify unavoidable disadvantages under which the less favored districts already labored could not fail to strike every one.

Mr Atkinson.

Copies of two letters from a late Collector and a late Sub-Collector of Cuddapah giving their opinion on the subject of local taxation

Chapter I.—Question 26.

[33]

Mr. Atkinson—continued.

meeting local famines are enclosed. These letters relate to a similar question that was asked in 1870. The people are not able to bear any further taxation, and from the best consideration that I have been able to give to the matter I am of opinion that a poor law in this country is not applicable.

(By Mr. Vans Agnew, late Collector of Cuddapah.)

Adverting to the Proceedings of the Board, dated 18th July last, No. 4921, I have the honor to subjoin a report on the subject by Mr. Storr, the Acting Sub-Collector. The only other Divisional Officer who has favored me with his opinion briefly states that "there are no persons in his division from whom to levy contribution to the fund," and, in truth, there is little more to be said of the whole district.

2. There are no zemindaries, and very few ryots with large holdings. The lands are most capriciously assessed, and, looking to the natural deficiency of water, and the precariousness of seasons, and to the rates obtaining in other districts, and especially in those which, with greater natural advantages, have been recently scientifically resettled, I am of opinion, as to which the Board are already aware, that the present rates of assessment in Cuddapah are, on the whole, unfairly high.

3. I therefore hold that the great bulk of the land-owners are absolutely unable to bear extra taxation in times of famine, and I would here remark, what seems to be so constantly lost sight of, that all distinctions between Imperial and local taxation are wholly beyond the comprehension of the agricultural populations. What they have to pay they pay to "the Circar," and their minds are impenetrable by any other idea upon the subject.

4. It is impossible to arrive at any conclusive opinion on the subject of the hoarding of grain and money, but my impression has always been that the existence of the practice has been much exaggerated. I know this that I cannot get the reputed wealthiest merchants in the district to admit the possession of incomes of more than a very few thousands of rupees. Almost the leading merchant of Cuddapah has returned his income at Rupees 1,600, and the very highest return received is only Rupees 6,500. I have been making special inquiries, and although it seems very odd to me, and I am inclined to be sceptical about it. I cannot discover that more than about a dozen men in the whole district are even supposed to have incomes of Rupees 10,000.

5. The idea, therefore, of meeting a local famine by local taxation must be pronounced, as far as Cuddapah is concerned, to be an impracticable one.

(By Mr. E. Storr, late Sub-Collector of Cuddapah.)

I have the honor to reply to your footnote, No. 265, of the 1st August 1870, on Board's Proceedings, No. 4921, of the 18th July 1870.

2. I beg to state that I differ entirely from the opinions advanced by the Famine Commissioners as to the arrangements to be made on the occasion of a famine occurring in any district.

3. The principle advocated by them appears to be that when the inhabitants of a certain district or portion of a district have, through no fault of their own, but through the visitation of Providence, been brought into great distress further burdens should be at once put upon them by the State.

4. The reason given is that, if the distress is relieved from funds contributed by tax-payers in general, and not by a local tax, there is danger of the dispensers of the relief acting overliberally because they only supply a portion of the funds from their own purse.

5. It is admitted that it is a fairer arrangement in the abstract that the empire in general should bear the burden of relieving famine occurring in its various districts, and surely it would be possible for the local administration to determine when the time had come for giving relief and to devise checks against abuse in granting it.

6. Famine occurring in a district affects all classes more or less, primarily the poor of the non-agricultural classes, and I cannot see the justice of throwing upon their richer neighbours the burden of their support. I am quite sure that the imposition of a local cess for relief purposes would at once stop most, if not all, the charities so freely given by native communities at such seasons.

7. To expect zemindars to support all the poor of their estates in a time when their own resources must necessarily be terribly diminished appears unreasonable. Their wealth is derived entirely from a share in the produce of the soil, and to impose extra taxes upon them at a time when they are getting no returns whatever from their estates, is a measure, in my opinion, both impolitic and unjust.

8. It is by no means clear to me that this obligation of supporting the poor (which admittedly attached to Government landlords, the great landholder of the country) was transferred to the zemindars. In any case it has been held in abeyance for more than a century, and I think the zemindars might with justice urge that extraordinary taxation should be met not out of their own pockets, derived from the land, but from other sources, such as Abkai &c., in which they have no share.

9. As regards the Sub-division of Cuddapah, I have no objection by in saying that in time of famine it would be impossible to relieve the distress by a local rate. The population consists principally, viz., petty landholders farming their own land, and moderately aided with farmers are very few in number. There are no manufacturing district few rich merchants who would be able to bear the extra tax. It would be an impossibility to tax the ryots who would already have been reduced to borrowing or mortgaging their lands to the Comati State.

Rev. Chester.

"Could any plan be suggested under which, subject to similar limitations, a municipality might be required to bear the cost of feeding its own poor?" The Dindigul Municipality contains amongst its residents very few rich traders or cultivators, and there are no manufactories where the employees are sure of regular and lucrative employment. As far as I could judge the distress during the famine was as great as among the people residing within the Municipal limits. From the instalment of Dindigul for a period of ten months, assistance amounting to an average of Rs. 650 a month was distributed in the town. I presume that the status of the majority of the residents is such that others would be found where the residents as a class were not wealthy. This goes to show that one plan for collecting funds by which to feed its own poor would not suit every municipality. I feel convinced, however, from what I noticed during the famine, and during two other periods within the sixteen years, that the Dindigul Municipality was a good deal of distress.

Rev. Chester—continued.

among certain classes of the people, from the high price of rice, that dependence cannot be placed upon private charity, to be raised by the natives themselves, if the distress is either very great, or extending over a period of some months, so that a considerable sum of money would be needed.

A plan I would suggest for the Dindigul Municipality, the only one in the Presidency of which I have any accurate information, would be to slightly increase the present tax on houses and lands within the municipality, say one quarter or even one-eighth per cent., and let this be invested each six months so as to draw interest and be allowed to accumulate until the recurrence of another famine required its use.

CHAPTER II.

RELIEF DURING EARLIEST STAGES OF DISTRESS.

QUESTION 1.—How does distress consequent on drought first make itself felt among the people, and how is it first brought to the notice of the district officers? What are the indications by which the district officer would judge whether the distress is due to temporary or local scarcity, or is likely to be the forerunner of very severe general distress ending in famine? What steps should be taken to ensure that such indications are brought to his notice? To what extent does the existing district organisation suffice to ensure early and trustworthy reports, and if not sufficient, what other measures are suggested as requisite?

Sir W. Robinson.

It would be impossible to devise more certain means of knowing the precise condition of the crops and of the people in every village, than we possess in South India. The question is simply one of sincerity and capability of administration with reference to the facts which can be made patent. We have in every village a village establishment; and we get from every village periodical statements of crops, &c., with reference to the Revenue administration. A plea of want of prescience can therefore exist—our difficulty is with incredulity or otherwise of the bureau (District and Superior) from whatever motive; and when there is the fear of being charged with “crying wolf” being deemed “sensational” and the like; and there is anxiety about securing superior belief and support, the difficulty of local officers is doubtless considerable, but it lies in these things alone. It is very sad now to contemplate what occurred in the early stages of our famine in North Arcot and Salem, and even in Coimbatore, from the fancy of single District Officers “not to have a famine” when it was raging around them. The famine was in full flood while we were being assured that things were fairly serene.

Wandering is always the first sign of pressure of want in the homes of the poor and it at once indicates deficiency of attention and relief where both are most urgently needed:—namely, in the villages. Indeed the goodness or otherwise of district administration may be fairly gauged thereby throughout a famine. Want has begun in the cottages of the poor, and they wander forth and are encouraged to do so from obvious reasons. I believe that the very keystone of famine administration lies in at once arresting this necessity in the villages, where alone estimates can be made. The organisation needful for effecting this end must be pre-arranged, and I trust will secure the Commission’s attention. As respects general estimates under such circumstances (Question 5), I may observe that a wealthy, well-to-do village with a quarter crop may pull through the early months of a famine very fairly, while a pariah hamlet—with dry crops only and those of the poorest kind and no money—may be decimated in a few weeks with half crops. Famine administration is almost an individual thing.

Mr. Price.

In an increase in the price of food, and consequent falling off in the quantity procurable. How distress is first brought to the notice of the district officer I am unable to state, as I was not one and was not doing duty in the Revenue Department when the famine began. I believe that it was brought to notice by Tahsildars and other Revenue Officers who attended, as they should, to their duties. There is, as far as I know, no special arrangement for reporting to the chief Revenue Officer of the district the appearance of famine. If he looks at the returns, and moves as he ought amongst the people under his charge, he will, if tolerably observant, notice distress quite soon enough to be able to efficiently meet it.

What I, as a district officer, would take as a sure indication of coming bad times would be a very considerable failure in the crops of the preceding year, followed by failure of the monsoons in the year under consideration. This, with increasing prices and increased demand for employment on the part of the laboring classes, ought to be a sufficient warning to prepare for the worst. The crowding of women and children to works, the sale of ornaments, the falling off in condition of the mass of the people, and the increase in crimes against property, come at a later stage; but they succeed with marvellous rapidity the period when, without the fear of being snubbed by his superiors, a district officer may definitely declare that famine exists in his charge. I do not think that there can be any difficulty, if a district officer is fairly on the look out and knows his district, in distinguishing temporary and local distress from what may eventually end in famine.

Local Distress.—I speak now of a district only—can be easily enough dealt with; so can temporary, where for instance there has been a very serious failure of the crops of one season, but it is clear that, unexpected and improbable circumstances excepted, the next will prove good and the period prior to the expected harvest has alone to be tided over. The difficulty is to tell the exact period when temporary distress begins to pass into famine, and when the State should step in with relief measures of an extensive character.

I have no suggestions to make as to the course to ensure that indications of distress are brought to the notice of district officers. I consider, however, that districts and divisions, as a rule, are far too large. The staff of Native subordinates is also too small, and their charges are too extensive to allow of their being readily worked.

Mr. Longley.

Distress is first felt by insufficiency of food resulting from high prices, which is indicated by people supplementing the same with deleterious roots and fruits, which they would not eat as food in ordinary seasons.

The district officer would ascertain this from the monthly price returns received from the taluks and from special reports to be submitted to the Collector by the Tahsildars through the divisional officers.

Temporary distress is indicated by the rise of prices consequent on large exports to other districts, *e.g.*, the commencement of the Salem famine in September 1876 looked like temporary distress only. There were large exports to Bangalore, and, had the north-east monsoon in October 1876 not failed, it is probable that the distress would only have been temporary, as no further exportations would have been made and a local harvest would have been reaped. Local distress manifests itself by rise in prices caused by a failure of crops in a particular part of the country. The signs of a general severe distress are discovered from (1) the unfavorable prospects of a

Mr. Longley—continued.

coming harvest, (2) the state of the stock in hand, (3) the abnormal rise of prices consequent on the above two causes, and (4) the *intense anxiety* of the cultivating classes (small puttadars especially). These indications were all present in December 1876, when a *severe* distress was apprehended.

The submission weekly by Tahsildars to the Collector, through his divisional officer, of reports showing (1) the state of crops, (2) the prices of grains, and (3) the condition of the laboring classes and the frequent visits of the Collector and his divisional officers to the taluks to *test the accuracy of the information received* are sufficient. No other measures suggest themselves.

The existing organisation is quite sufficient for the purpose, and I have no other measures to propose.

Mr. Webster.

The existing district organisation suffices to ensure early and trustworthy reports of rain-fall, cultivation, health of people, and a tolerably fair report of the outturn of crops. But this information, as I have said above, is not sufficient to enable a fairly accurate forecast to be made. What is needed is an accurate return of the stocks of food-grains in the district at the commencement of each month. Such a return could not, however, be prepared without a large establishment and considerable inquisition. Estimates are made, but they are framed on no sure basis, and must, from the nature of the case, be a mere surmise. The quantity of rail-borne grain imported into, and exported from, the district can easily be obtained, but it would be necessary also to ascertain the imports and exports by land. This would be the greatest difficulty, and would require a considerable establishment. It would not be difficult to ascertain the actual outturn of the crops in a village, though the returns would most probably be under the mark as the ryots would think there was some new form of taxation in view. At present the Curnam prepares the return of outturn on a mere guess. He takes the number of acres cultivated under each crop in his village and calculates the amount of outturn at so much per acre. This will be far from correct, because the rate of yield per acre is arrived at on no fixed principle, and because the lands which, although cultivated, have no crop are not omitted from the calculation. I think that with our comparatively small villages and village establishments to which some addition would, if necessary, be made, and looking to the measurement of the produce as a recognised custom of the country as between landlord and tenant, there would be no difficulty in having all the crops in a village measured. It is doubtless an inquisitorial and therefore a somewhat retrograde measure; but I do not think we should compare India with other countries more fully developed, and some such arrangement must, I think, be made. The information thus collected would tell us approximately the monthly outturn of the district, and an estimate could be formed after a few years of the quantity of grain required for the consumption of the people for a year. We could then, on a failure of the cultivating rains, judge the then state of the stocks, how long they are likely to last, when and to what extent to be supplemented, and could forecast when they would be reduced so low as to materially raise the prices and thus cause distress, and when, if not supplemented, a famine of food.

Mr. Whiteside.

A rise in prices of grain, difficulty in procuring fodder for cattle and water for them to drink and for cultivation, are the first signs of drought. The rain returns and price lists, the season and cultivation

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Mr. Whiteside—continued.

reports, sent in from the taluks periodically, are sure guides to the state of the country, and finally the claims for remission put forward at the time of jamabandi are a very clear indication of the condition of cultivation. A district officer can from these assure himself as to the prospects of the coming season, and can with confidence declare whether or not famine is to be expected. In North Arcot, months before famine relief-works had to be commenced, the steady progress of the district towards a state of famine was clearly discerned, and the works that should be taken in hand first were decided on with reference to a scheme drawn up by me in consultation with the District Engineer several years before. No district officer, who performs his duty with ordinary zeal and attention, can fail to notice the unmistakable signs of approaching famine. He must travel in his divisions and see and converse with his taluk officers and the more important native residents, and it is impossible for him not to become aware of what is likely to happen.

Mr. Crole.

Distress first makes itself felt among the people by absence of employment owing to agricultural operations being paralysed and by a rise in prices. It is first brought to the notice of district officers by the usual reports from the taluks and by an increase in crime.

A district officer can distinguish between local or temporary scarcity and distress which is likely to be very severe and general by a survey of the previous and present state of the crops in his own and the surrounding districts, by inspection of the price lists returned to him periodically, and by a consideration of the reports received from time to time from his subordinates. The district organisation is sufficient for the supply of all necessary information.

Mr. Grose.

Distress appears first through outcries amongst the people, who are very noisy before there is real danger. Even when the distress is but slight there is a great deal of noise, and the pressure brought to bear on the lower officials is so great that they are sure to let the district officials know of it. Continuously rising prices and successive failures of monsoons over large areas increase local and temporary scarcity to severe general distress and famine. When there is danger the special attention of the lower officers in independent charge must be directed to the subject by making them submit special weekly reports to the Collector as well as the divisional officer to whom they are immediately subordinate. As each village has a corporation, consisting of a headman and others, with whom the Tahsildars, &c., are in frequent communication, early information is ensured. If the staff of Revenue Inspectors, which form the connecting link between the Tahsildars, &c., and the villages, were raised in status and increased in numbers, the organisation would be perfect; but it is greatly in need of this improvement.

Mr. Knox.

When there is only a rise of price consequent on a bad harvest in part of the district there need be no alarm, for if the rest of the district be well off, the distress will only be local and temporary. If, too, after the failure of a harvest, seasonable rain falls so as to render it likely that the next harvest will be a good one, the distress will not be of a very serious nature, prices will fall in anticipation, and the laboring classes will be able to get work in preparing the land.

The signs of famine are, serious failure of the crops all over the district, high prices every where steadily increasing, and continued drought. All these signs can without much difficulty be seen by a

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Mr. Knox—continued.

careful scrutiny of the rain cultivation and price returns which are always available. Greater care perhaps would be needed to ensure accuracy in these returns; but the present organisation of the district is quite sufficient if properly worked.

Mr. Pennington.

In this district, situated as it is on the sea coast, with a port (Tuticorin) always open and full of enterprise, with a line of railway running through it and several fairly good roads, to say nothing of 64,000 acres of the finest double crop rice-land in the Presidency all down the river valley, there was never at any time any absolute want of food, and the distress was indicated simply by the extreme pressure of high prices, as noticed under Question 15, Chapter I. Prices must always be the surest indication of the state of the country; if rice is selling at *three-half pence a pound*, there is sure to be distress, and famine may be looked for as prices get beyond that figure. The tide of emigration should also be carefully observed as an indication of the pressure of high prices. It is quite possible, I think, to get all the required information from the existing organisation if properly worked.

Mr. J. G. Horsfall.

Distress first makes itself felt among the poorer classes by the diminution in demand for field-labor owing to the stoppage of agricultural operations, by their consequent inability to purchase their usual food-supplies while prices are doubled, trebled, and even quadrupled the prices in ordinary years. The district officer first of all receives, from his divisional and taluk officers, reports of an unfavorable season, of the withering and loss of crops, of the want of work for the laboring classes, of the failure of pasturage for cattle, and of drinking water for the people. He is inundated with petitions from the ryots praying for remission on account of the loss of crops. There is usually a sudden rise in prices followed by extensive increase in grave crimes, robberies, and dacoities, by panic in the bazaars, and by a marked increase in the number of persons soliciting alms. Ascertaining that high prices are caused by failure of crops, and not by exportation of produce to other districts where distress may previously have arisen, the district officer has then to learn the condition of surrounding districts and the state of the markets throughout the Presidency at least. Should reports from all quarters or from his neighbouring districts be no better than those of his own district, he may reasonably conclude that distress is likely to be general and to be followed by famine modified or intensified accordingly as immediately preceding harvests have or have not been plentiful. A district officer of any experience of his district may miscalculate the extent to which distress may reach, but can never be mistaken as to the sign proclaiming it coming. Famine follows a bad season, and should, with the exercise of ordinary caution and judgment, be foreseen six months beforehand.

The existing district organisation is sufficient to ensure the district officers being fully informed of indications of coming distress. Indeed, the danger is that they will be magnified and exaggerated, and to check this tendency it should be the district Officer's first duty to gather by personal inspection of his district the extent of failure. He should also call for weekly reports from each taluk as to the rain-fall, extent of cultivation, condition of crops, stocks of food-grain, prices, extent of demand for labor, movement of people, increase in crime, state of health, disposal of personal and real property including cattle and land, and the direction of trade whether export or import.

Mr. Goodrich.

In a district familiar to the officer in charge, the history of the period immediately prior to the rise in prices will indicate to him the probable intensity of the distress. Its existence he will discover by visiting the weekly markets in the interior.

Distress is not caused by the loss of one crop, but by the loss of several running; if one monsoon fail, this (Vizagapatam) district may yet obtain a good crop from the other as it receives rain from both monsoons.

The Collector can, and does, receive reports from taluk officers, but the stipends of these men (100 or more, often Rupees 70) are too small to secure good men.

Curnams in Zemindaris are removed by law from the Collector's control; if they were required to be qualified for their offices and to keep and furnish all accounts prescribed in ryotwari taluks, the Collector would possess widely-distributed sources of information; at present much must depend on his power of seeing for himself and, in a district like this, on his power of rapid and frequent travelling. This district is larger and much more populous than the kingdom of Greece or the kingdom of Denmark.

Mr. Lee-Warner.

The distress of the years 1875, 1876, 1877 will have been suffered in vain, if it has not supplied any rules, the intelligent comprehension of which will assist district officers in estimating the probabilities of distress following the failures of one or more seasons. The normal condition of vast masses of the people has been shown to be such that the third of a series of recurring bad seasons over a large area of this Presidency must produce famine, while the second of such a series may produce the same effect, but happily more often passes off after causing great local distress; and that the efforts of private charity are able to administer to the suffering consequent on the drought of a single season. The most unobservant of men will have noticed the melancholy incidents of village life which accompany distress at the stage, when the ordinary supplies of drinking water begin to fail in the villages. As a rule, the deep springs are not affected thoroughly by one bad season. The warning of a universal failure of the drinking water in the villages cannot therefore be neglected. Almost continuously with the drying up of the wells the village returns of mortality show increase; disease breaks out among the cattle and crime of all sorts, but especially cattle-lifting and grain thefts, is business of daily occurrence. The district officer, who has the opportunity of moving about, will observe the women and the children of the poorer ryots digging even late in the day in the hard soil for roots, of which decoctions are made, to eke out the scanty daily allowance of grain on which they begin to put themselves. Beggars and paupers will be met with in abundance. The bazaars in the villages, and especially the weekly markets, will exhibit an uneasy activity, and the usual ornaments on the persons of the women and children will be conspicuous only in their absence. These seem to be the indications on which, in the second year of continued drought, the district officer should insist that he is getting early practical reports. To ensure their trustworthiness it will be found better perhaps if at this stage he has not declared his own views. Rightly or wrongly the natives believe that their European superiors are intolerant of opinions which do not coincide with their own; and it is obvious what serious results follow from the adoption of measures taken on reports written to please. If precautions are taken to ensure a faithful exposition of the writer's own judgment upon the indications which he has

Mr. Lee-Warner—continued.

diligently observed; and if it be also allowed for that the proprietors of large estates habitually misrepresent the state of affairs within their estates in the early stages of distress, in which they are often supported by the resident Sub-Magistrates from apathy or ignorance or other motives, the existing district organisation seems to me to be sufficient for the purpose required of it; but as it has been shown that when there is a crisis the district officer's proper place is at head-quarters, whence he can issue instructions and answer pressing references without delay, I think that his hands should at this period be strengthened by the appointment of a famine officer, whose functions in the earliest stages of the distress would be in testing the trustworthiness of the information submitted to the district officer. Such an officer need not necessarily be recruited from the Civil Service; but it is indispensable that he should know the language well, and be thoroughly acquainted with the modes of native life and thought, and be, in fact, one on whose judgment the Collector need not be afraid to rely.

Mr. Martin.

A district officer who keeps his eyes on his price lists and on his rain-fall registers ought to have no difficulty in predicting the approach of distress of some sort. It is then his duty to send special orders to his Tahsildars, Deputy Tahsildars, Revenue Inspectors, and superior office establishment to go on tour in different parts of his range, while he should himself take such a tour without delay as will give him a pretty accurate idea of the state of production from the last harvest and the anticipations of the people themselves. The reports to be submitted by the subordinate officers should notice the estimated production both as arrived at by the officers themselves and by the accounts given by the village officers; they should state whether many or any of the people showed signs of suffering in their physique, whether they are living on unusual or unfit food, whether they have parted with their property to an unusual extent, and whether any of them who ordinarily do not emigrate have left their villages. If the failure of crops appears by general report to be very general and of a high per-centage coupled with high prices and a deficient or badly-distributed rain-fall, and above all if the wells are very low when they ought to be full or nearly so, then such indications of distress as I have noticed will probably mean twelve months' famine if it occurs in the Madura District at the close of the north-east monsoon, particularly if neighbouring districts are similarly affected. If such indications occur at the close of the south-west monsoon, the distress has a much shorter time to run until the arrival of the north-east monsoon rains, and in the first year of distress it will not be severe, because there will still be the grain grown in the previous north-east monsoon, constituting the great bulk of the food-supply, to prevent the markets running very short.

I would say that distress in the sub-division of Madura District will only become famine in the first year if the north-east monsoon fails, and will not necessarily exceed temporary scarcity, and that of a trivial kind, in the first year, if the south-west monsoon crops only fail. Whether a failure of the north-east monsoon will produce famine or only temporary scarcity in the first year can only be decided in each individual case, for previous prices must be taken as a criterion of whether previous harvests were short or not, and the state of neighbouring districts as likely or otherwise to create a demand for part of the district stock must be considered. A serious failure in the north-east monsoon may be, to a great extent, abated

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Mr. Martin—continued.

by the thunderstorms of April and May filling the wells and making a crop under them possible. If after a north-east monsoon failure, the south-west monsoon and the thunderstorms of April and May also fail as they did last year, there will almost certainly be famine, lasting at least until the next north-east monsoon harvest, for the wells, the wild vegetables and herbs and the well-crop will fail.

I consider that the existing district organisation here is sufficient to ensure early and trustworthy reports, if the ordinary office-work beyond what is absolutely necessary be postponed, and the divisional establishment be freely deputed on tour in different directions.

Mr. Austin.

The people first feel distress consequent on drought by (1) rise of prices, (2) want of fodder and water for their cattle, (3) difficulty in obtaining employment, agricultural operations being more or less in abeyance.

The price list and the rain report give the first indications of approaching scarcity to a district officer, then follow the cultivation and season reports. Lastly, at jamabundy the amount of remission which has to be given indicates to a certainty what the state of the past season has actually been. I do not think it possible to mistake the symptoms of approaching famine. The present famine was predicted far and wide long before scarcity culminated in actual starvation.

Mr. T. M. Horsfall.

The more general the distress, the more people emigrate from one district to another. Aimless wandering about is a very safe sign of severe distress in the Madura District. Large emigration takes place from the Coast ports to Ceylon and Burmah. I do not consider that it is necessary for the district officer to take any particular steps to ensure these signs being brought to his notice; they force themselves on him. The existing district organisation is more than sufficient for this purpose.

Mr. Soobien.

Distress consequent on drought makes itself felt among the people by scarcity of water in the vicinity, by the exhaustion of food-supply, by a refusal of loans from the neighbours, by abnormal prices of food-grains, by a lack of money and the consequent necessity of disposing of property at a cheap price; also by want of field and other work for the laboring classes and their consequent inability to procure food,—a difficulty which is greatly augmented by the dearthness of the price of provisions. This state of things is usually brought to notice by general report to that effect and very prominently by emigration and by movements of persons in search of labor or food. Laborers thrown out of employ owing to stagnation of business in the labor-market begin to seek for places where there is, or where they think there will be a demand for their labor.

Mr. Vencatachellum Puntulu.

The taluks of my division (Harpanahalli, Havinhudgalli, and Hospet) are mostly dependent on the south-west monsoon. If there be no rain in any one year from May to the end of August, all hopes of first crop are given up, and the people feel that distress awaits them. As the Tahsildars register the rain-fall they judge from the blank returns they furnish, and the district officer also is guided by these returns.

The Tahsildars also send price list of grains sold in their taluks. As soon as the rains hold off, the prices of grain would rise and the

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Mr. Vencatachellum Puntulu—continued.

lists would show it. This is another source of information to the district officer.

If the north-east monsoon sets in properly, the distress is temporary. If it fails altogether, it will be a severe and more general distress. If the south-west monsoon of the second year fails, famine is inevitable. The existing district organisation is sufficient to ensure early and trustworthy reports.

Mr. Seetharamiah.

Distress consequent on drought first makes itself felt by the people by the failure of crops, by the rise in the prices of food-grains, and by local scarcity of food-grains. The poorer classes of people begin to make use of prickly-pear and seeds of grass and of trees for their subsistence, and wanderers and beggars begin to increase in numbers. This state of things is first brought to the notice of district officers by the Tahsildars in their monthly season reports. In a district like Coimbatore, where the agricultural classes form the bulk of the population, the district officer would judge the state of distress from the following statements :—

1. Periodical statement of rain-fall.
2. Do. do. of cultivation.
3. Season report including harvest.
4. Return of prices of food-grains.
5. Mortuary Registers.
6. Police reports of lawlessness and crimes.

also from the general increase in the number of wanderers and beggars, as well as from the emaciated condition of the agricultural cattle for want of fodder, and from the inability of the ryots to pay their dues of Government revenue; all these points being specially reported upon by the Tahsildars to the district officer. A comparison of the above statements and facts with those of previous good years would enable the district officer to form an idea of the state of the season in question; and if the statements and reports of all or most of the taluks compare very unfavorably, if the rise in the price of food-grains be gradual and steady, if the increase of wanderers and beggars is unusually great, if the previous year was also bad, and if the prospects of the season in the adjoining districts as published in their District Gazettes also look unfavorable, it can then be said for certain that a general distress ending in famine would be the inevitable consequence. But if these indications were confined to a limited portion of a district, the distress must be considered only local and temporary. All the informations required for the district officer to judge on these points are periodically sent to him by Tahsildars, and this system of communicating information would be enough for the purpose, and so no other measures seem to be necessary.

Mr. Weekes.

Beggars increase in number. Laborers are unable to find employment and resort to jungle plants and berries for food. Weavers cannot find a market for their products. Crime increases, especially grain robberies. The poorer class fall out of condition. Later on wanderers are found dead by the roadside.

The distress is first brought to the notice of the district officer by personal observation, or reports of police officers or outsiders, e.g., pleaders and mukhtars, planters and merchants or Zemindars.

In the beginning of October 1865, I saw the rice-crops in the district of Maubhum, Chota Nagpur, dried up in the fields, and in the same month, while in charge as Assistant Commissioner of the current duties of the Deputy Commissioner's Office, received a

Mr. Weekes—continued.

petition from the pleaders of my court requesting that the export of the little rice left in the country might be prohibited.

I forwarded this to the Commissioner and received through him a letter from the Board of Revenue relying on the doctrines of free trade.

I knew that rice-dealers, notably a retired Deputy Collector and a Putni Talukdar, were speculating in rice and buying up and forwarding to Calcutta all that they could lay their hands on.

These, I consider, two early indications of the famine that began and made itself felt some five or six months afterwards, and which depopulated whole villages in the district. Nine months afterwards in the rains following, Government had the greatest difficulty in throwing a small amount of rice into the district, the roads being bad and unbridged and crossed by hill torrents; and it was then too late to save many thousands.

The rice imported was sold at 4 seers of 80 tolas per rupee. There was no other food in the district.

The district officer would perhaps be able to determine the local and temporary or more serious and general nature of the distress by his knowledge of the general or partial failure of the crops, taken with the outturn of the preceding harvests, and the prices ruling and the movements of grain. A total failure of the main harvest following two years of exceptionally bad harvest would be certain to induce famine.

Reports on the state of the crops, prices and rain-fall, and the state of people generally should be furnished weekly to the Collector by Revenue Officer where possible and also by the Police; but the Collector should also see things for himself and take a personal interest in the success or otherwise of the agricultural operations forming the sole and all-important business of the mass of the population.

In Bengal the information machinery is rather defective, but has been improved lately.

In Madras it is potentially all that could be wished.

Mr. Oldham.

The district officer will notice the price lists to be submitted by the police station officers or Tahsildars. He will hear, or if there be reason to do so, will inquire if persons of the lower classes who live by daily labor are travelling in search of work in any unusual numbers. The existing district organisation in the Madras Presidency and in Lower Bengal is sufficient to ensure early and trustworthy reports on these subjects.

Mr. Cook.

Distress consequent on drought makes itself felt among the people—

- (1) by scarcity of works for the cooly-classes.
- (2) by the increased price of grain in the local markets.

Distress is brought to the notice of the district officer by the following:—

- (1st.) Increase of petty theft of food and cattle.
- (2nd.) Wandering on the part of inhabitants.
- (3rd.) Increase of the begging population.
- (4th.) By field-laborers seeking work elsewhere.
- (5th.) By a rising tendency of price of grain in the local markets, &c.

Mr. Cook—continued.

A district officer, I think, should be able pretty well to judge whether distress was likely to be temporary or of long duration by the following:—

If there have been hitherto good seasons, but followed by a failure of the usual rains, a temporary distress would probably be the result, for the people are so very dependent on seasonable showers for their crops. But a failure of the rains coming on previously, bad seasons with prices gradually rising would be a threatening of a famine, because the people's reserves of grain, &c., must have been greatly diminished by the bad seasons, so that a total failure of rain would leave them little or no hopes of retrieving them, and the high prices of grain would be out of the reach of many.

Careful watching on the part of the taluk officials, weekly reports and frequent visits to the threatened parts, would be enough to keep the district officer on his guard and enable him to judge pretty well whether distress was likely to be temporary or of long duration. If district officers be constantly on the move, the present organisation would, I think, suffice for early and trustworthy reports; but it is very essential that a district officer should move about when distress is imminent, for Tahsildars (owing to their multifarious duties) and others are either inclined to be apathetic, as they hate the trouble of famine duty and thus conceal real facts, or else they are over-frightened and exaggerate the true state of things.

Mr. Travers.

Distress consequent on drought first makes itself felt among the people by the rise in the prices of the staple food-grains, and is brought to the notice of district officers by the large proportion of the cooly-class flocking in from the district to the larger towns. The indications by which a district officer would judge as to temporary or local scarcity are, by the absence of export of grain and a greater increase in the imports; or when a famine is imminent, by the scarcity of rain-fall and consequent dryness of tanks, and the fact that imports have to come from a distance, and the prices of food-grains rising.

The Tahsildars should report weekly to the Collector (or Sub-Collector) any indications of a famine they may notice, such as large numbers of people leaving their native villages, the different prices of food-grains, stating the rise in prices, diminution of water-supply in wells, tanks, and river-channels, and the prevailing complaints of the smaller landholders and cooly-class; on the divisional district officer receiving such indications, he should himself make a tour through his district and judge for himself, or if unable, through pressure of work at head-quarters to do so, he should apply for and appoint a special officer for that purpose when available, deputing some one for this work who has had experience in previous famines.

Lieut.-Colonel Hasted.

Work rates remaining the same while the price of food is increasing, ordinary labor, such as tank-diggers, as prices increase, forsakes the scattered works in the villages, and flocks to works in the neighbourhood of towns and large bazaars, and then migrates to more favored districts, where food is cheaper. Small cultivators, cultivators' servants, and low-caste people (Malas) who do not usually work under Department of Public Works, will then come on works, and later on ryots of a better class. If the scarcity is temporary or local, the tank-diggers will leave the distressed part, but the other classes will not; if famine is to be anticipated, all classes will begin to move to where food is more plentiful.

Hon. Gajapathe Row.

Distress consequent on drought is first felt among people by gradual diminution of drinkable water in wells, tanks, and small springs; failure of crops, consequent exhaustion of food-grains, having no sufficient quantity for consumption, high prices, and want of adequate pecuniary circumstances on the part of laboring classes to meet their requirements occasioned by scarcity, and increase of petty thefts and open disturbances at rice-market by cooly-classes and habitual mendicants. An instance of this kind occurred on — September 1877 at Vizagapatam. A number of distressed people committed a loot in the market and at rice-godowns, and the merchants were robbed of their large quantities of stored rice and paddy. The offenders were not detected. A similar disturbance occurred at Simha-chelam, ten miles from Vizagapatam, at midnight of — September 1877, and in that case several persons were detected and convicted.

Unless the distress breaks into an actual famine, district officers have seldom accurate information of its predisposing symptoms, otherwise than by reports of every minute circumstance which might form one of the links of famine periodically laid before him in the form of returns.

The information must reach district officers under any circumstances through their local sub-divisional officers based upon the state of the country and state of the crops and market as well as the conditions of the people.

When the drought is continuous for three or four successive years, the crops must certainly fail. The stores of food-grains are entirely drained up. The minor farmers who cannot afford to pay the kists to their landlord leave their holdings waste. There is such a gradual rise of prices of food-grains that such classes become unable to provide for themselves and families and migrate from place to place in search of food, and resort to the chief towns of the district in crowds in hope of living on alms or of obtaining admission into poor-houses, if any, or of finding work for wages.

These form indications of apparent distress, and when these indications are of longer duration extending over the whole district, and its bordering provinces, it is manifest that the distress is not merely of a temporary or local nature, but is a forerunner of a very severe and general distress ending in famine.

To ensure that these indications are brought to their notice the district officers should obtain periodical returns from taluk officers of the state of the country, rains, cultivation, state of crops, and an approximate estimate of the outturn of the crops before they were reaped and of crimes and mortality with special remarks whether there are any other indications which foretell an approaching distress.

He must also have an ocular inspection of the state of the cultivated parts of the district in proper seasons to verify the reports he had received.

I do not believe that with the existing establishment the required information can be properly and accurately obtained. One or two clerks should be added to each taluk or divisional office for the purpose, and when the distress appears to have advanced so far as to indicate that famine is imminent, the district officer should be provided with a couple of Special Assistants to help him in testing the reports received from the local officers, and ascertaining their accuracy and credibility, and rendering necessary assistance in relieving the distressed.

Mr. Macartney.

The fact of drought rapidly enhances the price of food. There is a disposition on the part of traders to hold back from selling with the view of a further rise in the market-rates. The poorer ryots,

Mr. Macartney.

who live from hand to mouth, and are generally indebted to the sowcars, find it difficult to negotiate their customary small loans, which, in a promising year, would readily be given by the sowcars on the security of the coming crops. They have no considerable stores to fall back upon, as their surplus grain, after leaving them a bare subsistence, has been claimed and appropriated by their sowcars towards the liquidation of their debts. About this time they begin to part with any property that they may have in order to provide themselves with food. The extent of the drought, the state of the standing crops, the possibility of subsequent rain being able to save a portion, and what portion of such crops, and the tendency of the markets to rise should indicate to a considerable extent how far the scarcity may be feared to prevail.

An officer in charge of a district need simply ride out amongst the people of his charge, and, without asking any questions, he will soon hear enough of their complaints. These he may verify on the spot by carefully regarding the aspect of the people. The listless, hopeless looks of the groups of idlers at every village gate will tell its own tale. Tahsildars and Division Officers should be enjoined to report at once any indications of severe distress, and the district officer should, as early as possible, personally investigate.

QUESTION 2.—Which classes of the rural population are first affected by serious failure of crops likely to produce famine? In what way are they affected, and how is the effect manifested? Do the early applicants for relief consist of whole families or of isolated individuals? Are all sexes and ages equally represented, or do women and children preponderate among them? So far as the applicants are field laborers deprived of employment, does this arise because the employers have no money or grain to spend on wages, or because there is nothing to do in the fields?

Mr. Whiteside.

Petty landholders are the first to feel severely the effects of a general failure in crops. They do not usually work themselves, but superintend the cultivation of their little holdings by a few pariahs or people of other low caste, whom they employ on small monthly wages, usually paid in grain. When these people's crops fail, and there is a general rise in prices, they dismiss their workmen (who for some time will be able to find employment in other ways sufficient to support themselves) and reduce their expenditure to the lowest point. If the scarcity continues and their stocks of grain become exhausted, they then sell their cattle, reserving the ploughing bullocks as long as possible. Afterwards their little hoards of money are fallen back upon, and then the jewels of the family, after which the brass and bell-metal household utensils are sent to the pawnbroker, and finally lands and houses are mortgaged or sold. During the present famine, I noticed very many respectable landholders and village officers, who sent out the females of their own families as well as their other relations on to the relief-works at a comparatively early stage of the distress, and was informed on inquiry that there was actually no market for their property that they would otherwise have gladly sold. I was informed by a European resident of this district, who had a large herd of splendid cattle, that in the middle of 1877 he was glad to sell off his fine cows and young bulls at from Rupees 3 to Rupees 4 each, simply to save the expense of their keep. At that time cattle were unsaleable and, in many instances, were of an inferior description, driven to the jungle, and left to shift for themselves.

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Mr. Whiteside—continued.

The laborers when dismissed by the small landholders can usually find work under the Department of Public Works on the roads, and also to a limited extent under the more wealthy ryots, who take the opportunity of cheap labor to sink new and improve old wells, or to level land for wet cultivation when times mend. Such people afterwards take to crime as a means of support, and they also eke out their daily food by collecting jungle leaves and berries, the heart of aloe plants, prickly-pear fruit, &c. Whole families do not at first appear in search of subsistence. The older members of a family begin to go out and beg. The adult males then wander away in search of employment, and it is not until the famine is thoroughly established that entire families will quit their homes and go to any distance. During the famine, the numbers of women and children largely preponderated often to such an extent as to cause much inconvenience. The men, in many cases, stand about the villages, looking after cattle, doing scanty jobs of work, and always on the look-out for any casual fall of rain that would enable them to begin to cultivate. Throughout the famine it was a notable fact that, after every good fall of rain, the numbers of adult males on the relief-works fell off at once, and the men hastened to their villages to see what could be done in the fields.

Mr. Webster.

The agricultural laborers, petty artisans, weavers, and the smaller class of ryots.

The ryots are affected by the loss of their crops on which they depend for their support, and the balance of which is sold to pay the Government revenue; the petty artisans and weavers are affected by the slackness of trade owing to high prices and consequent necessity of the people to spend what they have in supporting life; and the agricultural laborers are affected (and sooner than the others) by want of demand for labor in the fields owing to there having been no cultivation operations (ploughing, sowing, and weeding), to there being no demand for harvest labor, and to the ryot's inability to pay for labor. The habitual beggars also are affected very early in the day by the cessation of charitable relief owing to the inability of the people to look after others than themselves.

The effect is manifested in the distressed people wandering, in the increase of beggars, and in the people eating the fruit of the prickly-pear plants and the seeds of grasses and trees, also by a general backwardness of collections and by the sale of jewelry, cattle, &c.

Females preponderated at the commencement and have continued to do so all through the famine. At the height of the famine, however, the number of children exceeded that of women.

Both because the employers have no money or grain to spend on wages, and because there is nothing to do in the fields.

Mr. Price.

The classes of the rural population first affected by famine are the ordinary cooly-laborers, especially those of the Pariah and Woddah (Navy) castes. These men are occasionally petty holders of land. The rain fails, they have had a bad crop the year before, they are "hand-to-mouth" people, and very soon get through what little grain they may have hoarded up in store, and dispose of such of their property as is saleable; they have nothing to do in their own fields, there is no ploughing or reaping work to speak of, and what there is, is done by the ryots and their own establishments. The next class to feel distress is that which supplies the ordinary wants of the cultivators, who very soon cut off any thing not absolutely necessary; the largest section of this, which is scattered

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Mr. Price—continued.

over the country, is the weavers. Some of these combine agriculture with their usual avocation, and when not working in their fields weave cloths for hire, the employer finding materials. Distress very soon puts a stop to their professional employment, and they have to fall back upon labor. Others of the weavers, who are simply artisans, sell up all they possess. During the famine a very large proportion eventually found their way into poor-houses (relief-camps) and on to village-relief.

The petty farmers come next, and then the servants of the better-to-do ryots, who are obliged, as a rule, to economise and, as a first step towards this, to send adrift the laborers for whom they have no longer occupation. The way in which the classes alluded to above are affected by any serious failure of crops is in a curtailment of their food to such an extent as to produce a visible falling off in condition, which is first to be observed amongst the young children. Not only is the effect manifested in this patent way, but if relief is not given, offences against property increase. The early applicants for relief neither consist, as a rule, of whole families, nor of isolated individuals. My earliest experiences of relief measures were in connection with works alone, and I cannot recall a single instance out of many thousands in which a whole family came on the works. Isolated individuals were certainly numerous, but, generally speaking, there were two or three of a family. Some one was left behind to look after the house, &c., and others had, for a time, employment elsewhere, and it was not until the pressure of the famine increased very considerably and the people had deserted their homes in search of work, that whole families applied for relief. Women and children all through preponderated in poor-houses and on works and village-relief. The moment that rain came the bulk of the men who could work went away to the fields, leaving the women and children on relief-works in such disproportionate numbers that it was often difficult to find suitable employment for them. Adults, both male and female, from about eighteen to thirty, as a rule, form but a small proportion of the applicants for gratuitous relief. During the late famine they were to be chiefly found on works. As regards field laborers deprived of employment who come upon relief, the first and largest batch comes on to the hands of the State, because there is nothing to do in the fields; the second and smaller section is almost entirely made up of the farm-laborers usually employed all the year round by the ryots. These men are turned off by their masters because they can no longer afford to support them.

Mr. J. G. Horsfall.

Field-laborers who work for daily hire are the first to suffer from failure of crops. Agricultural operations cease with failure, and their ordinary means of livelihood is thus wanting. Failure of rain in the first instance prevents ploughing and sowing. The land remains waste. The ryot, the usual employer, has no need of his field-laborer, and if he has hitherto been paying him daily hire dispenses with his services without further ado. Such laborers usually live from hand to mouth, and are consequently compelled to wander elsewhere in search of labor. As distress increases, the ryot dispenses even with his permanent servant, the paleru, whom he finds himself unable to maintain. The desertion of home and village seldom takes place till all credit is exhausted and all saleable property disposed of. Meantime their scanty food is eked out with roots, leaves, and fruits that are never thought of in ordinary years. Resort is had to grain-pilfering, cattle-mischief, robbery, and dacoity, and the Crime Register shows generally a large increase in crime. The first applicants for relief are men wandering away in search of

Mr. J. G. Horsfall—continued.

work and leaving their families at home. Finding that work is not procurable, he returns to take his family with him in search of relief whether by work or charity.

Field-laborers consist of two classes—those who are hired by the day, and those who are hired by the year or more permanently still. The first class are turned adrift the moment the ryot no longer requires his services; the latter are retained until the ryot becomes apprehensive that this stock of grain will not suffice for the wants of his own family. This latter class is looked upon by the ryot almost as his own property, and is only discarded when the ryot is forced by his own necessity to do so, just as he parts with his cattle for a mere song, or even for nothing at all.

Mr. Grose.

The poorest classes of the population are, of course, the first affected by a scarcity. If a man has land, however little it may be, he can raise a loan on it and postpone the evil time for a few days. If he is a laborer, the richer villagers, beginning to retrench and refuse themselves luxuries, cease to employ him, and he has no property to pawn. Similarly beggars find that the power and inclination to give alms diminish. The first affected classes are the classes who are least tied to their homes, and they wander about in search of food. Isolated individuals first want relief, but as the famine advances whole families apply for it. In this district efforts were made to send all able-bodied labor to the canal, and women and children formed a disproportionately large portion of the residuum in some places; but I do not think there is any general preponderance of women and children. The usual employers do not cease to employ laborers at first, because they have no money or grain for wages, or because there is nothing for the laborers to do; but they discard some of their laborers, because they fear for the future; afterwards when drought has made cultivation impossible and the sum at the employer's disposal for paying wages has dwindled to nothing, all the laborers are, of course, dismissed, except that there are a few hereditary servants almost attached to the land who share the fortunes of the family so long as they have any thing to eat.

Mr. Longley.

Coolies by profession and ryots of small holdings who live from hand-to-mouth are first affected. They are affected by insufficient food and supplement this by deleterious food. After a time they part with their cattle and implements of husbandry; the effect of all this is manifested in great deterioration.

In the present famine isolated individuals were the earliest applicants for relief.

Women and children preponderate.

From both causes, but chiefly from the latter.

Mr. Pennington.

As far as my small experience goes, women and children preponderate largely amongst applicants for relief, and it was not an uncommon practice, I believe, in this district during the famine for the head of the family to emigrate, leaving his wife and children to be fed gratuitously till the advent of better times. This could only be avoided, I think, by providing labor at fair (not subsistence) rates so as to outbid the demand in Ceylon. The distress was caused chiefly by the want of labor in the fields, owing to the failure of the crops; but also no doubt, to some extent, by the inability of the ordinary employers of labor to pay wages for any work they might otherwise have found for their servants. It may be worth while to

Mr. Pennington—continued.

note here that the proximity of Tinnevely to Ceylon and the coffee estates of Travancore makes the circumstances of the district in the matter of famine relief (as in many other ways) somewhat peculiar; and it is no doubt the case that different districts require very different treatment when afflicted by famine.

Mr. Sewell.

Large Ryots and Mirasidars, the ordinary employers of field labor, naturally contract their operations when expecting a famine, and of course the slack time of year for field work, viz., the hot season, is the time when laborers suffer most. In ordinary years the employers help the laborers through this slack time in order to retain their services for the coming working season. But, when Government relief is once started, employers, as a rule, stop all aid of this kind. They tell their laborers to go on to relief-works, knowing that, if they (the laborers) pull through the hard times, they will return to their own villages again and the employers will again get their services. Of course there are exceptions, but I believe this to be the rule.

Mr. Crole.

The rural classes first affected by serious failure of crops are the day-laborers, farm-servants, and smaller ryots. They begin to wander or to live on roots, grass-seeds, and other natural produce. The first applicants for relief consist of isolated individuals; at first men predominate. When they are field laborers, their distress arises, not from their master's not possessing grain, but owing to there being no employment in the fields.

Mr. Austin.

The first class of the rural population to feel the effects of scarcity are the small landholders. The cooly class find employment of various kinds for a time even after agricultural operations have come to a standstill, but the petty land-owner, who has hitherto always been supported by his land, is not accustomed to seek extraneous employment, and does not know where to look for it even if willing to undertake it. The effects of pressure are first shown by his selling off the cattle, which he can no longer afford to keep, then his wife's jewels go to the nearest pawn-broker, then his cooking utensils are parted with, and lastly he is reduced to selling the very roof of his house.

In many cases the small ryots took the thatch off their houses to feed their cattle, and finally ended by selling the cattle and the timber of their houses. In my experience the early applicants for relief are isolated individuals and chiefly women and children. Where the applicants are field laborers their distress arises both from their employers being in want of money and from there being no field work for them to do. In some cases an enterprising ryot with a little capital will avail himself of such an opportunity and improve his lands by digging wells or constructing channels, but as a rule their idea is to curtail expenditure by cutting down the number of their laborers.

Mr. Martin.

The belief I have on this subject is that the first to suffer are the small land-holders—men who in ordinary times till their own land along with their nearest relatives and eke out the remainder of the livelihood they require by odd jobs throughout the year. They get nothing from the land, their neighbours have no odd jobs to give them, and they have very few ornaments or other property to part

Mr. Martin—continued.

with. In this sub-division the men emigrated early, and the first emaciated objects I met with were women and children in groups, who threw themselves down and begged in concert for relief. They had been subsisting for some time past on roots and wild herbs, but the absence of rain for more than two months had made a scarcity of this food, and their prospect was terrible. My first relief works were immediately crowded with people of this sort, and very few men made their appearance. The field laborers did not make their appearance in numbers for some time afterwards, and then only by degrees.

At the first part of the famine they only came in those cases where their masters could no longer support them, and not simply because there was no work in the fields. Afterwards, even those masters who might have been able to afford it discovered that they could save the drain on themselves by sending their laborers to works, and they did so.

Mr. Lee Warner.

The villages support in ordinary times their own beggars; the proportion of which, excluding religious mendicants, may be 1 per cent. of the rural population. These are the first to feel the contraction of alms-giving, which a serious failure of crops produces; and the effect on them is manifested by their emaciation. They continue, however, to haunt the villages. The next sufferers are daily laborers or, as it may be more fitly expressed, ordinary coolies. In a time of wide universal distress these persons are to be found upon the main roads leading in the direction of large towns, marching along with their families, in which all ages and both sexes are represented. If (*vide* my answer to a portion of paragraph 6) the Public Works Department is then equal to the growing emergency, numbers of these persons will be provided with work before they have become lost in the streets and bye-lanes of large towns, or before they have wandered so long without food that they have become incapable of work. These classes always furnish the first applicants for relief at the hands of Government. When the richer ryots are compelled by their own necessities to send away their regular field laborers, the more advanced stages of distress, the forerunner of famine, have been reached; and then it is that the classes of "Soodras" who live by domestic service, handicraft's men, such as workers in carpentry or iron, weavers, and all those whose stock-in-trade is the knowledge they possess of some industry, but who never had any capital behind them, fall in overwhelming numbers upon Government relief. So far as field laborers, who in ordinary times are supported by, and have regular engagements under, the richer ryots, are ultimately driven to become applicants to Government for relief, much of this is attributable to the selfishness of their employers, who wilfully keep them back in the villages on half and quarter allowances of food, hoping against hope that the season will improve, before they are compelled to drive them out to seek elsewhere the means of sustaining themselves. The consequence is that when this point is reached these laborers and their families are weakened and only fit for gratuitous relief. I noticed this frequently in the Ramnad Estate; and the influence which the headmen possess no doubt has some connection with domestic slavery, modified with the progress of the country.

Mr. Knox.

The first class affected by failure of crop is no doubt the laboring population, not those who are permanently kept on by ryots and would come more under the head of domestic servants, but those who are only occasionally employed. Even if they can get work, they still

Mr. Knox—continued.

may suffer owing to high prices, but they principally suffer from there being little or no demand for labor. In proportion to the failure of the harvest and the continuance of the drought, so does the demand for labor become less and less, simply because there is nothing to be done in the fields.

Such being the case, even an importation of grain and a consequent fall of prices will do no good to the laboring classes, for they have no means of purchasing food no matter what its price may be.

This degree of distress, viz., the inability of the laboring classes to procure the means of purchasing food, will show itself in an increase of vagrancy and in an increase of crime, chiefly thefts of articles of food. These signs ought to be clearly discernible by District Officers already put on their guard by the previous failure of the harvest. They have ample machinery at their command to ensure full information being furnished.

When the laboring classes are thrown out of employ, whole families will be in danger of starvation and will suffer alike, and, if there be a little work obtainable, it will be monopolized chiefly by the stronger members, the weaker and more helpless suffering most.

Mr. Jones.

The poor farm laborers, either those employed for a period on the estates of more substantial farmers or those earning a daily living anywhere, are the first to feel the effects of the distress. They can get no work and have no food, and begin then to move about in search of employment and wages. This movement has a steady tendency in the direction of the Presidency Capital, where they hope to get work of some kind. At the very early stages of the distress only the men and boys and more able-bodied of the women went out far in search of employment, but, as the distress continued and increased, entire families joined them and took their chance of living by begging in the neighbourhood of the places in which individual members of their families were employed. When the distress was properly established, or, I should say, when the famine began, the applicants for relief consisted of whole families, the isolated applications being only at the very early stage. At the later batches seeking relief women and children preponderated. In the majority of cases it happens both that the employers have no money or grain to spend on wages of farm servants and that there is nothing to do in the fields.

Mr. Soobien.

In the case of laborers, absence of field and other work and consequently the absence of earnings to buy food, with no property to sell, follow as a result of a serious failure of crops. The failure of crops raises the price of food-grains and places the quantity requisite for his subsistence beyond the reach of the purchasing power of his wages which, owing to absence of work, a glut in the labor market, and want of employers, are materially diminished. Thus a failure of crops operates in two different ways on the laboring class. It diminishes their earnings and lessens their purchasing power. The effect is manifested in the reduction of the quantity of proper food, in the recourse to unwholesome food, and in the consequent gradual emaciation of the body. Want of work in the vicinity of their homes compels them to seek for labor elsewhere, and this leads to emigration. Movement of bodies of laborers from place to place is also an effect of the failure of crops. Further, when honest labor becomes scarce and is difficult to be had, other ways, no matter they are dishonest, for appeasing the cravings of hunger are thought of, and

Mr. Soobien—continued.

this leads to lawlessness and crime. As regards the begging class, who ordinarily lived on the bounty of their neighbours, they find it extremely difficult to live such a life in a year in which there has been a serious failure of crops, and their clamor for food therefore becomes very great.

When distress has begun to be felt the members of a family begin to disperse in different directions, and it is only on rare occasions that the applicants for relief consist of whole families.

When things come to such a pass that through want of work in the neighbourhood the adult male members of the family quit their homes and emigrate to different places, then it is that the women and children left behind them preponderate among the applicants for relief.

Both causes, viz., want of work in the fields and want of means on the part of employers, contribute to deprive field laborers of employment, but the cause of the employers having no money or grain to spend on wages operates, I think, to a comparatively less extent. If the employers see that there is the slightest prospect of a favorable season, there is usually no lack of interest on their part in commencing agricultural operations. They raise money somehow or other and employ the laborers. Here I think it necessary to point out, however, that as far as this district is concerned, owing to the subdivision of lands being freely permitted, and owing to the small size of individual holdings, there is not much difference between a day-laborer and an employer, and employers therefore are not many in the district.

Vencatachellum Puntulu.

The laboring class and ryots who hold lands the assessment of which is less than 10 Rupees are first affected by serious failure of crops. The former wholly, and the latter to a great extent, depend upon their labor for their subsistence. The better classes who generally employ them become very economical on distress appearing, and perform all the work themselves, as they cannot afford to pay wages to laborers besides maintaining themselves and their relatives who do the needful work required in the fields. Hence there is no labor employed, and these suffer and clamor for want of work and food.

Seetharamiah.

Agricultural laborers and artisans are first affected, and next agriculturists of small holdings; the former by being deprived of field employment, which is the only means of their daily livelihood, and the latter by want of grain in store and by want of money to buy it from elsewhere. Both classes of people are therefore obliged to dispose of their household chattels and live-stock, and then leave their homes in search of work elsewhere, or assume the profession of beggars or commit petty thefts. If they cannot by these means successfully earn their livelihood, their physique is deteriorated, and gradually sickness prevails, and mortality increases. In the beginning of distress applicants for relief consist only of isolated individuals, and gradually of whole families when they find that they cannot live otherwise. Among the applicants for relief women and children generally preponderate, their proportion of the population being naturally greater. This being the early stage of famine, it is more on account of want of labor in the fields than want of money in the hands of employers that the laborers are deprived of employment.

Mr. Weekes.

The first to feel actual distress are the non-agricultural population. Of course the first to be affected directly by serious failure of the crops likely to produce famine are the cultivators themselves, and next indirectly through them and in a far higher degree the people who are supported by the crops, (1) the agricultural laboring class, (2) the artisans, (3) the beggar class.

Class 1 is not called in to reap the usual crop and misses its share.

Class 2 does not receive the cotton to clean (Dudekolas) or to spin and weave, or the oil-seeds to press. There is little sale for cloths, firewood, thatching, grass, in rice-husking or manure, removing or collecting to be done; stone and wood work for house repairing is postponed to a more convenient season: even shoes are at a discount though hides still command a sale for exportation in spite of the excessive deaths of cattle.

The third class naturally suffer as charity begins at home.

I think the early applicants for relief are the aged; and women and children preponderate.

Field laborers are deprived of employment in reaping because there are no crops and no harvest grain to be spent in wages and where there is no rain and it is not the season for agricultural operations, because there is nothing to be done in the fields and therefore there is no capital forthcoming. When the season is favorable for sowing, the circulating capital is forthcoming. Seed-grain is almost always to be found and purse-strings and grain-stores are opened; but at first grain-dealers hesitate; as the season advances and becomes favorable they are reassured. When success is assured the grain-dealers are as propitious as the circumstances. During the famine they withhold all assistance, and the cultivators in hard times try to carry in all their agricultural operations with the help of their own families.

Mr. Cook.

The classes of the rural population likely to be affected first by failure of crops are the cooly class, next the ryots. I should say about half of a village are coolies and laborers, the balance landholders. If the rains fail, works in the fields must also come to a standstill; hence the laborers, who are mostly servants of the ryots, are thrown out of employ and first feel the distress. This is shown by their leaving their villages and seeking work elsewhere, which, if they cannot get, drives them to Government aid. As the famine rises, is at its height and on the decline, the ryots suffer, for at the beginning, being in possession of hoarded grain, cattle, jewels, household goods, &c., they managed by disposing of these to keep themselves alive, but when they have disposed of all these, they naturally find themselves in the same position as the other classes.

The early applicants for relief are generally isolated individuals; for instance, the husband of a family comes; as the husband finds his wage not sufficient to support his family, after a while, we find the wife following and so on. As famine gets worse and is at its height it is a very common thing for the husband to desert his family, some other place where field labor is available, and this he generally does without telling his family where he has gone, for fear the food should follow and burden him. Hence it is that on works we find a preponderance of women and children. The preponderance of women over men is also attributable to the fact that in servants the number of men to women averages less. At the beggary stage of a famine, when field laborers are thrown out of employ, it is as the crops

Mr. Cook—continued.

rule, because the employers have no money or grain to pay them, but because there is no work for them to do. A ryot likes to keep his laborers if he possibly can, but he does not like to pay or feed them for nothing, especially when there is every appearance of prices rising. Hence, when work in the fields becomes scarce, the ryot gradually drops off his laborers till he has none left.

Major Baynes.

(a.) Those who live from hand to mouth, that is, those who are dependent on daily receipt of food or of wage for their daily expenditure, such as cowherds, hawkers of grass, of greens, of curds, and of fuel &c.; the first four, through failure of their stock in trade, are compelled at once to adopt some other means of earning a livelihood; the latter can only earn a bare subsistence under normal conditions; but, as soon as the price of grain permanently rises, that of fuel falls because the rich men will not pay even the usual price of it, so that in large country towns it was sometimes unprocurable, and these classes were driven, at a comparatively early stage of distress, to maintain themselves on grass seeds or by acceptance of State relief on works, in poor-houses, or in their villages.

(b.) Rarely in family groups; the larger number consisted of elderly women, chiefly widows, unmarried girls, and children of both sexes, who in one of the ways described above had been contributing to the family purse, and also of infirm paupers who had previously been maintained by their relations or by public charity.

(c.) Applicants and recipients of relief were of all ages, but the women and children greatly exceeded the males in number. I am unable to have recourse to returns, so speak from memory, but I think that I am accurate in stating the ratio of women to men on gratuitous relief was two to one, and of applicants for employment on relief works as eight to one. The preponderance of female applicants for work was so great that it was impossible to employ them all except at a dead loss to the work, and more specially to the male workers, because, when payments are made on tasks, directly a *superfluous* agency is employed, the receipt of each person engaged to perform that task is diminished. I have seen one hundred women and children clamorous for employment, but not a single man amongst them, and women would often work as men with mometies and pick-axes on women's wage sooner than be turned away. The number of children on works averaged, I think, about 25 per cent. of the adults, but on gratuitous relief and in kitchens they were nearly equal in number to the total of both sexes of adults.

This state of affairs to European experience seems strange, but is, I think, to be accounted for in several ways—

- (1.) That at all times women in this country perform more manual labor than the men as field laborers, weeding, planting, and picking crops, as carriers of burdens, as suppliers of grass, fuel, and water; whereas the men are too indolent and too conceited to work at any task which custom has specially allotted to the women, and, as these embrace nearly every ordinary avocation of life, the men have not much left to do.
- (2.) Fifty per cent. at least of the women under forty had been abandoned by their husbands or the men with whom they had cohabited prior to the distress.
- (3.) Every woman in this country is a mother who is capable of child-bearing.

Major Baynes—continued.

(d.) As far as *actual* laborers are concerned, because there is nothing for them to do in the fields, but in my taluk this class is few in number compared to the holders of small puttās, who under normal conditions would have worked on their plots if they had had grain in stock, and so these were thrown out of usual employ at a more advanced stage of the famine because they had neither bullocks nor seed nor means of subsistence till fresh crops were harvested.

Mr. Travers.

The class of rural population first affected through failure of crops is the cooly class through their inability to procure work in their own villages on account of the ryots not caring to sow their grain, fearing the failure of rain and the consequent want of water; under these circumstances, the cooly class begin to wander from their villages in search of employment, in most instances leaving their wives, children, and the relatives dependent on them behind; and these are the people who generally first require assistance, as the men coolies generally get into the large towns, and for a short time longer manage to support themselves, though not earning enough to feed their whole families.

The reason the applicants for field labor are deprived of employment is principally because there is no work to be done in the fields on account of the ryots not *caring* to sow, *not* because they have no money.

Rev. Newport.

The classes of the rural population first affected are the agricultural laborers and the ryots holding very small portions of land. In the one case the employers of labor are chary of making use of assistance in a time of scarcity, preferring to do more of the work themselves. The small ryots are scarcely removed from agricultural laborers in this respect and suffer very much in the same way as they. They depend for subsistence almost entirely on the produce of their own small holdings, and when this produce is insufficient to carry the ryot and his family through the greater part of the year, privation at once ensues as there is no stock of money or grain to meet the deficiency.

Next to these are the rural artisans, such as blacksmiths and carpenters, who depend for their livelihood mainly on the repairs and renewals of the agricultural implements used by the ryots and on the repairing and erection of sheds and other rural buildings. This work falls off at the first appearance of scarcity. Old implements are made to do longer service and dilapidated sheds are not renewed or repaired.

Hon. Gajapathi Rau.

Farm servants, laborers living on daily or monthly wages, and minor tenants cultivating small plots of land, say paying rents below 50 Rs., and men of precarious and unfixed means of livelihood, such as carpenters, smiths, and weavers, &c., are first affected.

2. With drought the prices of food-grains rise, and their limited means would not afford them ample means of purchasing the food-grains whose stock in the market is getting decreased.

3. When a sowcar foresees an approaching distress he avails of the first opportunity of advancing funds to the needy tenants who had fallen in arrears with their landlord, and contracts to buy at a very low rate the whole produce of his field. As soon as the crops are harvested he takes charge of the grains and stores them up. But

Hon. Gajapathi Rau—continued.

he feels no sympathy either for the tenant who sold the grains to him by his contract, or his farm servants. Of course he never brings them to market for making a reasonable profit, but stores and waits until the prices have highly and highly risen in the market to treble their original price or more.

4. Thus the cultivator and the farm servants are deprived of the fruits of their labor, and the poorer laborers are unable to buy what they want for their daily subsistence, being penniless, and what they earn by daily labor being insufficient to cover the cost of their wants.

5. This is manifest by the fact that the lands which were under a minor tenant's cultivation were left waste by him, and he and his farm servants and laborers running from place to place in search of alms and charity while they work for hire where work can be had with their famished corporeal strength and skeleton-like appearance.

6. The applicants for relief consist of whole families as well as isolated individuals, but women and children preponderate of the distressed, although it is to be assumed that in a severe famine both sexes and all ages are equally affected.

7. We cannot arrive at a definite conclusion as to whether field laborers' calamity is due only to the means of the superior tenant's failure to keep up his establishment, or only to want of work in the field, but it must fairly be presumed that both these causes contribute to the distress of laboring classes.

Mr. Macartney.

Naturally a serious failure of crops affects first the poorest classes, ryots whose holdings are small, and such as live by their daily labor. Of the latter, those first affected are the women and half-grown children, who ordinarily add to the small earnings of the family by field labor, but which is now not procurable. Such as usually depend upon earning a livelihood by the sale of grass and firewood find now so much competition that their former occupation ceases to provide them with sufficient food. In such circumstances they begin to seek relief, appearing more frequently in groups of several at a time. The men at this early stage seldom appear. I am inclined to think that the want of field employment is due especially to the fact that there is no profitable work for them to do. When the Government give no promise of a fair return for the labor bestowed, it is evident that a mere minimum of labor will be spent upon them.

Lt.-Col. Hasted.

Among the rural population, the first to feel a failure of crops appear to be those who, in this district, are really the ryots; these people are supported throughout the year by the total stock of grain is likely to run out, but it seems that when the stock of grain is likely to run out, they are sent to find employment on Government works. As men alone came to works first, and, till prices of food came high, took money to their families at intervals; later families came, and at the worst time women and children came alone, stating that the males of the family had deserted them.

Hurry Row.

The day coolies or agricultural laborers are first affected of crops. Their services both in the field and in the village are unnecessary. They rove about stealing and begging. Evidently the applicants for relief are generally isolated individuals and professional beggars. At the beginning males number the most. It is during the severest stage of famine that women and children seek relief, professional beggars preceding the others. Farmers do not employ

Hurry Row—continued.

laborers in bad seasons because they wish to keep what money they have against the coming scarcity or famine and because there is nothing to do in the fields.

QUESTION 3.—What classes of the urban population are the first to feel the effects of famine, and in what way do those effects operate on them, and how do they manifest themselves? How may they best be watched and met in their first stage?

Mr. Longley.

Of the urban population, the cooly artisans and other cooly classes (e.g., the blacksmith dispensing with his cooly-bellows-blower on account of high prices) are the first to feel the effects of famine by loss of employment consequent on diminution of proper food.

By final deprivation of cereal food and resort to noxious herbs, &c., or alms to sustain life and a tendency to wander aimlessly away in search of livelihood, &c.

By local inquiries through Municipal and other local agency, thereby giving timely employment and thus preventing their tendency to wander.

Mr. Whiteside.

In the towns, the petty artisans, and more especially weavers, brass-workers, goldsmiths, washermen, and barbers are the first to suffer. Such people depend for their support in ordinary times upon the expenditure of the more wealthy in little luxuries which are the first things that are dropped when a famine makes its appearance. Very early in the famine, I noticed a number of barbers who formed a gang of coolies doing hard earthwork on a road in the Palmanair Taluk, and found on inquiry that they had no employment whatever in their ordinary calling, and thus had no option but to go on to the works to save themselves from starving. Hardly any weavers, however, went on to the relief works; they sold off their looms and other little properties; they begged and then starved; but they obstinately refused to do relief work, or to go to the camps, and I saw so clearly the terrible state of distress into which the whole weaving community had fallen, that on the 7th March 1877 I wrote strongly, recommending the grant of advances of Government money or yarn to enable them to continue their ordinary mode of life, and the Government were pleased to approve of my suggestion, and many hundreds of lives were saved. Such distress need not be watched for. It is patent to the most unobservant eye. Then, too, in large towns, there is usually a large number of Mussulmen residents who are always poor, who have little or no household property to fall upon, whose females are gosha, and the males too proud to work or beg. Such people I well knew suffered very soon, and very terribly as the famine went on, but the class is one that it is extremely difficult to deal with, or to understand its actual condition. Neither males nor females would accept work, and they scouted the idea of going to relief camps. Money they would accept, but in the great majority of cases refused to come and take it, demanding that it should be brought to their homes, and they were the more strict in this if (as was usually the case) some of the leading members of the Mussulman community were on the Distributing Committee.

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Mr. Webster.

Artisans, weavers, daily laborers, and habitual beggars. Distress among such people is manifested by an increase of alms-begging and by their wandering about the streets.

Mr. Webster—continued.

The best way of meeting distress among the laboring classes and beggars in the first stage would be the establishment of relief-works in the town. This would provide for those able to work, but there should also be a close poor-house for the old and infirm and those unable to work. Works alone will not do, neither will a poor-house alone, both must be instituted simultaneously. The former alone will not provide for really deserving persons who cannot work, and the latter alone would result in keeping a number of lazy, idle, good-for-nothings in ease and comfort. I do not think any system of meeting distress among such people in any stage is as good as work and poor-house together. And when any relief at all is needed it should take this form. Distress among artisans and weavers, more especially the latter, as they form the more numerous class, will require different treatment as they are unaccustomed to earthwork. It would be necessary to provide employment for them by weaving. The artisans might be employed on odd jobs about the relief-works. This latter class is not numerous, and they might perhaps be made to work on the usual relief-works at first in the weak gangs.

Mr. J. G. Horsfall.

In the large towns the professional beggar-class first, then the classes who work for daily hire suffer; that is, the cooly class generally; then weavers, cloth-dyers, masons, carpenters, smiths, and other artisans. These latter obtain credit for a time by the disposal of their property. The result of want of employment generally is that the bazaars are crowded and complaints of combination, &c., made against the grain dealers with not unfrequently an attempt to help themselves by "looting" the grain warehouses. With high prices the employers of labor reduce as far as possible their expenses, thus fewer cloths and jewels are purchased. Houses are left unbuilt or unrepared. On the other hand the laborers find that their daily earnings, which formerly sufficed to procure food for their families, are now no longer sufficient. For a long time insufficient food is endured, and then begging and resort to relief whenever offered.

In the early stages suitable works near their homes should be provided. It is the want of employment solely that aggravates the evil, and at first all are unwilling to wander far from their homes even with the assurance that employment will be provided for them at a distance.

Mr. Goodrich.

The poor Mahomedans in such towns as Vizagapatam, Vizianagram, and Berhampore are the most improvident class. Of this class but a very small population has any employment, and each earner of wages has an undue number of dependants. Their condition is degraded and they want will or skill to work; direct relief in food or money must be given to them. To the Hindu poor advances of yarn to weavers and earthwork upon works of water-supply or drainage will provide subsistence. Estimates for such works should be kept in Municipal offices; there is no town which does not need improvements of the kind.

Mr. Price.

First those persons who have fixed salaries and coolies, next the artisan class, and lastly the petty trader. The way in which distress operates upon the first and second classes is by an increase in prices directly diminishing the supply of food procurable by them; in the case of the third, by a marked falling off in the demand for everything, excepting the actual necessities of life and a consequent diminution in their receipts. How to watch and meet the effects of

Mr. Price—continued.

famine amongst an urban population is a matter upon which I can give no opinion. I had nothing to do with anything of the kind. I quitted Bellary before the subject of affording aught but relief by works was considered, and, in Cuddapah, town relief was, until a comparatively late period of the famine, afforded by private charity, assisted by a special grant from Government. In the case of Government servants, the obvious method of relief is an increase of salary (which can be easily calculated) as soon as the price of rice reaches a certain figure and has remained at that for a certain time.

Mr. Grose.

To the laborers and beggars, as the part of the population first affected by famine, must be added for towns where they are sometimes very numerous, the recipients of small ready-money pensions. The distress shows itself by outeries and disorders in the bazaar and not by wandering in this case. Relief works on subsistence wages should be provided near the town at an early stage.

Mr. Crole.

The urban population first affected belongs to the cooly class, who always live from hand to mouth. They congregate in the bazaars, rate the shop-keepers for the high prices prevailing, and sometimes threaten to loot them. They should be recruited for some large public work, at least ten miles distant from the town.

Mr. Sewell.

In towns the habitual beggars feel the effects of famine first and manifest it by their increase of numbers, poorer appearance, and greater importunity. They are a most difficult class to deal with, being vagabonds and objecting most strongly to anything like the restraint and cleanliness of a camp. Without force it is next to impossible to keep them within bounds. What they like is to get a daily dole or meal and then to wander about in hopes of picking up more. If it were possible at the commencement of a famine to seize and confine in a camp all the professional beggars, it would be comparatively easy to assist the more deserving class of petty shop-keepers, hucksters, &c., who are the next to suffer. If legislation is to be adopted to give officers greater power of control, I think the professional beggar class is the one to which it should be first applied.

Mr. C. J. Knox.

The smaller artisans in town must first suffer from the effects of high prices, viz., those classes whose customers are chiefly the poorer classes of the population; such for instance are the weavers of common and coarse cloths, potmakers, cheap bangle-makers, and probably also makers of agricultural implements. Such of these artisans who have but a small stock in trade and cannot make large profits must necessarily first feel the pinch as the demand for their goods is reduced to a minimum. If the distress continues and increases probably all trade but that in food suffers; but the more opulent tradesmen have something to fall back on; the smaller artisans little or nothing.

I see little good in making inquiry into the circumstances of these classes; they will suffer more or less according as there is general distress in the district; which general distress can be gauged in the manner I have before pointed out. Neither do I think it at all advisable to make special efforts to meet distress among these classes. When general relief measures are considered necessary all classes may take advantage of them. For instance, I doubt the advisability of

Mr. C. J. Knox—continued.

making advances to weavers of money and material for manufacturing cloths. The cloths will not be saleable at first, and when Government at the conclusion of the famine endeavours to sell them, they will, if successful, paralyse the trade of the very persons they have been trying to help.

Mr. Austin.

In the town of Vellore, the only large town of which I can speak, the first class of the population to feel the effects of the famine were the Mussulmans. The town was thronged by old and infirm Mussulmans of both sexes, but chiefly females whose ordinary protectors began to find themselves unable to support them at this crisis. It is wholly superfluous to watch for them. They make themselves seen and heard.

Mr. Martin.

The village beggars first, and next the smaller artisans and the weavers. These are persons generally who use grain largely in their diet, and seldom touch meat. They begin to wander about the country in small numbers as distress increases, and some of them take to crime. As distress heightens, great numbers of this latter class get involved, for the demand for their productions almost ceases, and they have no system of asking higher prices when food increases in value. They do not, either, as a rule, hoard grain or money.

The meat-eating classes get on better, partly because they have more stamina and partly because they steal freely from the flocks and herds in the neighbourhood.

Briefly, I think that there should be a preliminary inspection made very rapidly by a great number of responsible officers to warn people against emigrating to improper places, and to let them know that arrangements for their relief will be made if the season gets worse.

Inspection on a standard scale should be introduced in any tract in which this preliminary inspection shows distress likely to result in starvation, and at first it will probably be found possible to distribute the people into workers and persons for the poor-house, leaving the old, &c., to depend on relief by private charity. By degrees this private charity will be withdrawn, and people will begin to show one after another the necessity for the relief which the Inspector must have power to extend to them.

Mr. Soobien.

Day laborers and laborers working under professions such as artisans and weavers, &c., and others who are not habitually engaged in any profession such as Brahmins, Mussulmans, &c., are the first of the urban population to feel the effects of famine. The effects operate on them by absence of employment and by paucity of relatives and others willing and able to help them and are manifested by their general clamor for work, by their starvation, and by their being consequently compelled to live on unwholesome food.

Mr. Jones.

The small cultivators living on the produce of their own labors and above working for hire are the first to feel the effects of famine: their small stores are exhausted and their fields cannot be worked and are of no use to them: their credit is gone, and they begin to hoard the little they have by scanty expenditure: they put themselves on reduced quantities and try to hold out as long as they can. They gradually lose strength and condition, and, when

Mr. Jones—continued.

at last they have absolutely no food and no means of getting any, they wander away from home in various stages of emaciation, dropping down and dying as their strength gives in. These are the most silent and heroic sufferers; their traditions and their training keep them from asking till it is almost too late to do them any permanent good by affording them relief. Some employment near home for these classes will, I think, be the best way of meeting their distress in its early stage.

This is, to a certain extent, correct, but I think that Mr. Jones puts it rather too strongly. There are "yeomen," so to speak, who will not come to work until hardly pushed; but, as far as my experience goes (Bellary and Cuddapah), the generality do not wait until this stage of want.

Mr. Horsfall.

Among the urban population those who make luxuries are first affected. A good instance are the weavers in Madura. They are difficult to watch and judge as they are a retired and unassuming but useful caste. House-to-house visitation is necessary in their case to be of benefit to them.

Seetharamiah.

Of the urban population the class of men first affected by distress are weavers and artisans; the effects of famine operate on them just in the same way as they do on field-laborers, these being the indirect laborers of the agricultural class generally. The effects may be watched generally by careful inquiry and scrutiny by Government officials into their private circumstances, and can be met by giving them such employment as they are accustomed to do.

Mr. Oldham.

Of an urban population the first to feel the effects of famine are the day laborers, and the artisans of any large industry who work for daily wages, particularly if the industry be an overstocked one already. The weaving class is the best type, and I refer particularly to it. The effects operate by the sale of clothes becoming contracted, and by employers dispensing with their hands, or their demand for clothes. These people generally have some cohesion and represent their own distressed state to the authorities. After much experience of the class, both in the Midnapore District (Bengal) and in Adoni, and of many devices for relieving their distress, I have no better remedy to propose for the State than to provide for them out-door work on roads. Private charity can be dispensed to them in a different way. I would refer them to out-door work at the earliest, as well as the later stage, for State relief.

Mr. Weekes.

Artisans, especially weavers, purdah-nashin women and others with small fixed incomes, and the sellers of the thousand other articles, fruit, vegetable, &c., which form the main staple of the small shops in a town. Those with fixed incomes are affected mainly by the rise in prices; the artisans because the cultivators have not enough to feed themselves and cannot buy clothes, &c., the small shopkeepers from the absence of their usual articles of sale. Employment in spinning and weaving should be given to weavers, rest

ed rates

Mr. Travers.

Of the urban population, the first classes to feel the effects of a famine are the petty comaties and weavers, and in the early stages I think these should be helped with small advances; the weavers certainly might be helped through a famine by Government supplying material, and just paying sufficient for the working up of it as to keep the family; in the same way most of the "mechanic class" might be assisted, Government ultimately selling the products, and probably recovering the most of their outlay.

Mr. Cook.

In the town the first people to suffer are the beggars, I do not mean wandering mendicants, but village beggars, who have been in the habit of picking up a little here and there, and artisans. As regards the first, it is shown by their wandering propensities. A village beggar will never leave his village if he can help it, but as soon as distress comes, and he finds he cannot get anything at home, the beggar may be seen roaming everywhere, and as distress increases his physique gets weaker and weaker. Next are the artisans, such as weavers, smiths, carpenters, &c. As the famine increases they find their living going, for those who used to employ them are beginning to feel the pinch of famine also and require their services less and less. Hence they gradually dispose of their tools, &c., &c., try begging, and finally are compelled to seek Government aid. It is not until the famine is at its height that we find this class of rrots on the works, for never being accustomed to hard manual labor, they shrink from going. Perhaps the best way of watching them in the first stage is by putting them under the supervision of the Village Magistrate with orders to watch them carefully and report on their condition, and if possible to keep them together in their villages by private charity, which could be best organized by the Tahsildar, for when they begin to stray, it is difficult to aid them. At the beginning of famine the villagers will not allow them to starve, for there is a kind of freemasonry among natives. As famine increases and their condition gets precarious, steps should be at once taken to get them on some work or other, or support those unable to work with dole, but till that time I think they are safe enough in their own villages.

Major Baynes.

(a.) Weavers, artificers, potters, brick-makers. Weavers and artificers, when the famine becomes established, are unable to dispose of their handiwork; their distress is evidenced by the sale of ornaments, jewels, and brass household utensils; by the offer of their manufactures at nominal prices, and crucially by their application for employment on a relief-work, or by their willingness to accept cooked food in a poor-house.

Urban population—
first classes to feel
effects of distress.

(b.) To afford relief to these classes at the proper time and in a way acceptable to them is a very difficult task, but to do so in such a way as also to ensure perfect freedom from abuse is impossible. The offer of relief to them under the same conditions of labor and residence in a poor-house that were applied to the laboring and agricultural classes is practically to prohibit its acceptance by them; they are neither inured to labor under exposure to the sun, nor are they accustomed to the use of excavating tools. I have seen their women faint on the works and their men with hands so raw from the friction of the tolls that they were unable to use them; moreover these classes, and especially the female members, have a strong prejudice against the acceptance of cooked food and its consumption in public;

Best means of afford-
ing relief to these
classes.

Major Baynes—continued.

so powerful is it that they will refuse relief in a poor-house though the result be death; therefore to force members of these classes to earn their relief by digging or by residing in a poor-house is simply to cut off the large majority from State relief.

(c.) At a later stage of the distress the Government permitted advances of money to be made to weavers for the purchase of materials, which, when manufactured into cloths, were bought by Government at prices calculated to represent the wage of manufacture. This method was not, in my opinion, either advantageous to the State or effectual as a relief measure, because although the sum of money thus invested in advances without interest was enormous, the amount of relief afforded was not sufficient to the support of any other but the worker, so that the weavers' families had to be supported gratuitously and because the loss sustained on the sale of so large an accumulation of stock was, I believe, very great; and if, to ease the sale of this stock, the retail price were reduced below the ordinary market value, the weavers would again be disadvantageously affected.

(d.) In cases of widespread public distress it may reasonably be demanded that persons who have private means should exhaust them before they claim gratuitous support at the public expense; now all members of these classes, even the journeymen, possess jewels, &c., which represent so much tied-up money, and, as long as I knew that such a person had such means of self-relief, I should not consider him eligible for gratuitous relief.

(e.) The question here naturally suggests itself,—How can the true condition of a member of these classes be ascertained so as to equally guard against unjust refusal of relief by Government on the one hand and against an undue advantage being taken of the public charity by the applicants on the other? The only tangible test that I can suggest which is sufficiently unpleasant to be restrictive, but not so much so as to be essentially prohibitive, is to offer cooked food without residence to such as solicit aid, but not in a public kitchen. I would set apart for them an enclosure in their own quarter of the town into which none but their own caste-fellows should have access.

(f.) Further, it must be remembered that all applicants for gratuitous relief, whose appearance does not indicate the necessity of immediate aid, are subjected to a careful inquiry before it is extended to them; and, in dealing with comparatively so small a portion of the affected population as is comprised in these classes, it is quite possible for an active and intelligent officer to arrive at a close approximation to the condition of each applicant. On all large public charities there must be some abuse; but from my own experience I believe it can be reduced to a minimum, which it is better should exist than that by the rigid enforcement of repugnant measures a large amount of needless suffering, if not of mortality, should be created amongst certain classes.

(g.) The brick-makers, potters, and builders of mudwalls are accustomed to work in the sun; but they are not able to compete on earthworks with professional excavators like Weddahs. Relief, however, can be afforded to them on works by apportioning the task to their capabilities, or by feeding them in village kitchens.

Rev. Newport.

The classes of the urban population first affected are the small bazaarmen and those artisans accustomed to do the rougher and inferior work of their various trades. The small bazaarmen feel the privation, because, dealing in small quantities and with the poorest classes, they fail to sell a sufficient quantity at the enhanced rates

Rev. Newport—continued.

to gain a livelihood for themselves and family. Their transactions are fewer and on a smaller scale, and their profits are less than before. During the present famine hundreds of these petty tradesmen failed altogether to get a livelihood. They spent their daily receipts in meeting the wants of their households, and, when their stock of goods was gone, had no means of procuring more. They thus became beggars.

Among the working part of the urban population, the petty artisans (such as the sandal-makers among shoemakers, the journeymen amongst blacksmiths, weavers, goldsmiths, &c.,) are the first to feel the privations attendant on famine. The coarser or inferior workman finds his clients amongst the poorer classes, and hence suffers when they suffer, i.e., at the very beginning of the famine. The journeyman-artisan is dismissed by his master as soon as the latter has only enough business for his own hands to do, and hence pinches a long time before his master does.

The lower classes of household and other servants on small fixed monthly salaries are also among the early ones to feel the pressure of the famine.

With respect to this last class, I see no means of caring for them except through their masters, who will doubtless do all they can to help them.

In the case of the other classes, the best way of assisting them appears to me to be the affording of help to the master-artisans. Employment in their own line is of course the best means of rendering aid, but difficult to carry out in the numerous trades. If the master-artisan had sufficient work to enable him to employ journeymen, he would of course give them employment, and these in their turn would patronize the petty bazaar-men, and thus the lower strata of the urban population would be benefited all round.

QUESTION 4.—There is a considerable number of poor and infirm persons, who in ordinary years are supported by their richer relations and friends or caste-fellows, and of habitual mendicants, but who become claimants of State relief when scarcity or famine arises. What is, approximately, the proportion of this class to the total population, and at what stage do the springs of private charity begin to dry up?

Sir W. R. Robinson.

I think that the Commission scarcely need hamper itself about sources of private charity in famine times. Private charity is fair in India in ordinary times. But in a famine the balance is necessarily on the other side—Charity is reserved for the family—and it therefore need scarcely enter into the calculations of the Commission. In its character too—distribution of small casual doles of congee-water and the like—it does not save life though it may slightly prolong misery. As a matter of fact Government may put the consideration aside as unlikely to be efficacious in the task before them; and should deal with famine as if private charity did not exist—deal with it as a “poor-rates” question altogether beside casual, indiscriminate, and feckless charity. Of course friends and connections help each other most admirably in this country; but direct independent and individual charity is more or less a snare and delusion; and at such times unworthy of the reliance of Government.

Mr. Price.

I have no reliable data from which to calculate. From what I saw during the famine however,—and I often counted the aged, cripples, &c., on village-relief,—I should say that the percentage of those usually dependent upon the charity of others, and mendicants, is upon

Mr. Price—continued.

an average about ten. As soon as famine, as such, assumes a definite form, there is, in my experience, a tendency, and a very natural one, amongst the poor classes to get rid of the task of supporting useless relatives. The consequence was that the moment that the State or charitable private individuals step in, every infirm, old, crippled, or otherwise incapacitated person was turned off by his former supporters. I have found very many cases of the parents of, what would be, in ordinary years, fairly well-to-do cultivators, who had been sent into poor-houses by their children, to there await better times. I have frequently sent for the sons of respectable old people whom I found on village-relief, and have generally been answered to the following effect: “I have a wife and four or five young children, there has been no rain, and the crops have failed. It is as much as we can do to keep ourselves and children alive. I acknowledge that I ought to maintain my father, and I will do so as soon as times mend a little; if you turn him off now, he will certainly die, and some of us will probably do so too.” In other instances I was told by the sons, &c., that they did not see why, as they were starving themselves, they should maintain their parents when Government would do it. Charity as such lasts as long as the people have the means. I knew of cases where rich ryots fed the poor all through the famine.

Mr. Longley.

Indigent or infirm persons unable to earn their livelihood are (among better classes) generally dependent on their richer relatives, who as a rule do not forsake them in times of scarcity. Those who have no such well-to-do relations become claimants for State relief. Among the poorer classes the aged and infirm are in ordinary times protected by their relations until distress sets in, when, owing to the inability of the latter to earn enough for their own support, the former become the objects of *State relief*.

Mendicants ordinarily live on alms which are given by natives of all classes, but these alms are withheld, or are given on a very limited scale, in times of distress. The consequence is that most of this class of mendicants then look to *State aid*.

In the Census returns of 1871 the number of male population of this class (mendicants) is given as 5,169, whose females and children according to the district ratio would be as follows:—

Females	..	..	..	..	..	..	..	5,253
Children	..	..	..	..	..	..	..	5,000
							Total	10,253
							Grand total including males	15,422

The number of infirm, i.e., deaf, dumb, insane, &c., is entered in the above returns as 9,990, but what portion of these are dependent on richer relations cannot be ascertained. There are no data on which to estimate the number of the poor depending on richer relations.

Mr. Stokes.

The proportion of poor and infirm persons supported by their richer relations and friends or caste-fellows and of habitual mendicants, but who become claimants of State relief when scarcity or famine arises, is about 0.825 per cent. of the whole population. This figure is arrived at by taking the number of persons on State relief on the 23rd February 1878, viz., 1870, as such against a total population of 2,266,615 according to Census of 1871. The figure of the 23rd February was taken as it was the latest stage of famine, when it could be expected that only those that answer the description given

Mr. Stokes—continued.

in the question would remain on State relief. But from experience it would appear that habitual beggars and others described scarcely resorted to State relief.

Mr. Whiteside.

I am of opinion that about 1 per cent. of the population of a large town are habitual mendicants, and about 4 per cent. poor and infirm. Charity is regarded by the native community as the greatest of virtues, and its practice is maintained even to a scanty extent to a very advanced stage of a period of scarcity. Not until it is thoroughly borne in upon men's minds that the famine is really serious, and the importance of self-preservation is forced upon them by stress of circumstances, do the springs of private charity completely dry up. When lately the season began to mend, and fresh grain began to come into the markets, I noticed with surprise and pleasure as soon as prices fell how the practise of charity began to revive, and I saw beggars receiving small handfuls of grain here and there.

Mr. Goodrich.

No materials exist for making anything better than a vague conjecture. The results of actual experience in the south are before the commission. I should endeavour to obtain them as the best evidence if I had to make an estimate.

Mendicants exist in no great numbers, but no large village is without a few of the class. The Census Return of unproductive males gave 3,395; nearly all of these are habitual mendicants, many of whom have families. This enumeration does not account for the regular beggars whom every village contains and who, as I believe, form not less than 1 per cent. of the population. They are beggars from infirmity caused by age or disease. They have houses, and in many cases do a little work. It is the custom of the country to accept the task of maintaining such. They are in some cases sturdy knaves who could work if they would, but prefer to threaten annoyance unless relieved.

The village beggars are driven to wander when the prices of food treble. Many begin to wander as soon as those prices have doubled.

Mr. Horsfall.

The general opinion is that about 3 per cent. of the population are more or less dependent upon the support of their richer relatives or private charity. Private charity is very extensive; it is practised daily and without ostentation. It is difficult to prescribe an exact limit for the cessation of private charity: it is inculcated as a Divine obligation. Charity to poor and infirm relations does not cease until the means of self-support cease to the person hitherto protecting. The habitual mendicant does not hesitate to seek relief both by private and State charity. At no time can the springs of private charity be said to dry up except with the inability to bestow charity.

Mr. Grose.

I can give no useful information as to the proportions of the population who are mendicants, &c. According to the Census of 1871, the "unproductive class" in Nellore, which is explained at page 189 of the Census Report as consisting chiefly of mendicants, numbered 9,886, or 72 per cent. of the total population which is 1,376,811. Private charity diminishes, of course, from the first, for the poorest laborer is often here as elsewhere charitable. Still in the famine of 1876-77 decrease was not so obvious as to be forced upon my notice till the crisis of the famine came when the south-west monsoon of 1877 was failing.

Mr. Crole.

Between 3 and 4 per cent. of the population constitute the classes alluded to. Private charity dries up as famine becomes developed.

Mr. Martin.

Approximately, as far as I can ascertain, habitual mendicants are about 2.5 per thousand; deformed, blind, and other persons physically incapable of work are 3.5 per thousand; and old, infirm dependents of families 50 per thousand; total, 56 per thousand, or 5.6 per cent. Private charity begins to fail to a certain extent the moment people become aware that the failure in the harvest is universal. It does not reach the extent of absolute refusal of food for some days, but what is given is given sparingly and grudgingly and ceases in a few days. Once prices have gone below 8 lb. of second-sort rice per rupee, it may be pretty confidently predicted that charity will begin to stint and will not last for a month in its entirety.

Mr. Austin.

I should estimate roughly that 1 per cent. of the population fall under this head. The springs of private charity begin to dry up as soon as it becomes evident that the period of scarcity is likely to be a long one, and when each individual begins to feel it time to think of himself.

Mr. Knox.

I should say that the number of those who from age or infirmity are unable to shift for themselves would be about 10 per cent. I do not include professional beggars, but I should not think that the number of these is large, and they need not be taken into account; they are mostly able to work and, like others, would be forced to apply for relief when distress became severe.

All the large numbers of infirm persons would not however be on our hands at the commencement of distress, but only the infirm of the laboring classes and poorer cultivators. This number, though amounting to 10 or 12 per cent. of the total numbers in these classes, would not be more than about 1 per cent. of the entire population. It would not be until famine became so severe as to affect all classes composed of persons of only moderate means that the percentage would much increase. It would require half the population to be on our works to make it rise to 5 per cent.

Mr. Jones.

I believe those always supported by richer relations, friends, and caste-fellows, and habitual mendicants can scarcely fall less than 5 per cent. of the total population, at a rough estimate, and it is when distress becomes established as famine throughout the land that private charity almost ceases.

Mr. Soobien.

Approximately one-twentieth of the total population may be said to form the class of people indicated in this query. At the stage when people are drained of the surplus of their income and can ill-afford to spare money, &c., for the support of others, that themselves owing to the prospect of the disappearance of the famine being remote, then the spring of private charity begins to dry up, and the class of people under reference who hitherto lived on other's income find it hard to eke out the means of their subsistence. This generally happens a few months after the appearance of the famine.

Seetharamiah.

The proportion of the class of people mentioned in this question to the total population may be approximately estimated at 6 per cent. This proportion is larger in the urban population, where the tendency

Seetharamiah—continued.

and necessity to depend upon others, is greater than in village agricultural societies, who are all self-protective, except those, completely unfit for work by physical unfitness. Private charity begins to dry up when the prevailing high prices begin to press the givers hard. The agricultural classes, many of whom after a fair crop followed by a total failure would have left for them surplus grain for about three months, will continue their usual charity till the greater portion of their own stock is exhausted. During the earlier stages of distress the usual charity is not discontinued all at once. The discontinuance is only gradual, and would not be felt to any preceptible extent till numbers seeking gratuitous aid become overwhelming, when alone arises the inclination to stop the usual charity altogether.

Mr. Oldham.

The springs of private charity never dry up for poor and infirm persons who, in ordinary years, are supported by their richer relations, &c., and for habitual mendicants. These springs may contract, and do contract as prolonged distress tells upon the donors, but only fail altogether when the donors' means have totally failed—not in all cases of course, but there are always multitudes of such instances. I would venture to say that in a famine these classes (the poor, infirm, and habitual mendicants, &c.) fare much better than the poor who are habitually self-supporting on little more than a subsistence wage.

Mr. Cook.

About 10 per cent. It would be very difficult to say exactly when private charity begins to dry up, as it all depends on the supporting individuals, the rapidity with which famine increases and prices rise. High caste people would no doubt hold on the longest as their pride forbids them to drive their relations on Government aid; low caste would soon give in. I say it would only be when their present stock is not sufficient to support themselves that they would give in, and this would be difficult to determine. I know of one man who has distributed charity all through the famine and is still doing so.

Captain Awdry.

The springs of private charity appeared to dry up entirely when the State took the duty of relief of distress on themselves. There was then a reaction, and those who, as heads of communities, were charitable at first, appeared in many cases to endeavour to obtain relief for themselves by sending their own dependents to conjee houses or relief works. As an instance of this I may quote the case of a large ryot who has the reputation of being charitable. I learnt at the time, on reliable authority, that his laborers (a kind of slaves) whom he habitually feeds with grain in return for their labor, were sent to Government works and received grain from him to live on, having at the same time to pay the money received by them to him. This was soon put a stop to.

Hurry Row.

In India private charity seldom dries up, but it does not go out of its doors to afford relief.

QUESTION 5.—It is obvious that if an accurate forecast of the condition of the people during the approaching season, following any more or less serious failure of the ordinary harvest, could be made by the District Officer, it would be of great utility; in what way could he make it, and on what data should his calculations be based? Suppose for instance that he estimates that half the average food-crop has been lost:

for the support of how many people does the balance that is saved suffice? How are the rest of the people to be fed? He must form an estimate of the food-stocks in the country and of the power of trade to bring in more. Supposing these two elements sufficient to supply what is wanted, there could be no famine of food. But there may be lack of money to purchase food; how is an estimate to be framed of the number of persons who would probably be able to purchase, and of the number who must be assisted by the State, either by employment which will bring them wages, or by food if they cannot work? These would consist mainly of the classes indicated in Questions 2, 3, 4, viz., the field-laborers, the urban poor, and infirm dependants or mendicants. What numbers approximately of these classes would you expect to have on your hands if the food-crops in your district failed to the extent of $\frac{1}{3}$, $\frac{1}{2}$, or $\frac{3}{4}$? and if this happened in two consecutive years?

Mr. Whiteside.

I have already observed that a district officer has available many returns and statistical reports from which he can form with great accuracy a forecast as to the state of the coming season in his own district, while the reports printed and circulated by Government in regard to the condition of adjacent districts place him in a position to calculate how far the state of the surrounding country is likely to affect his own district as regards prices, demands for grain for exportation, &c. But the calculation of the quantity of the stocks of grain actually in hand, and the length of time for which they will last for the support of the local community, is a far more difficult matter. All natives, and especially the agricultural class, are addicted to the hoarding of grain year by year. A prodigious share of the crops as they come off the ground are stored away in under-ground receptacles, the existence of which is jealously concealed and strenuously denied if inquired after. These stores of grain are kept intact, often for years at a time, and are gradually fallen back on when scarcity prevails, or when bazaar prices rise inconveniently. It is impossible to estimate even with approximate accuracy the total amount of these grain-stores, but of their existence in large numbers we have clear and unmistakable evidence afforded in the course of the famine, which has now prevailed in this district for upwards of two years. According to the last Census the population of North Arcot was 2,015,000 persons, and during the famine it was calculated that 1,500 tons of grain per diem would be required to feed those people. But when the famine was at its highest pitch of severity, the largest quantity of grain imported by rail in any one week never exceeded 1,000 tons. It was thus clear that the vast bulk of the population was being regularly supported by grain actually present in the district. The grain dealers' supplies in the large towns consisted chiefly of grain imported by rail, but the great mass of the agrarian population throughout the past two years have been eating their own grain. This is further shown by the fact that when the late raggy harvest was known to be a fine one, and heavy crops were being reaped, large quantities of old raggy were suddenly thrown into the market in various places by people who must have kept them in store throughout the last two years in spite of the enormous prices that could have been realised had they chosen to sell earlier. This district is so well supplied by railways, and there is such an excellent system of road communication from the various railway stations, that no difficulty was experienced throughout the famine in getting stocks of imported grain from the railway stations to the chief market towns. There was, therefore, never a famine of food in the true sense of the word. The secret grain-stocks coupled with the weekly importations by rail amply supplied for the needs of the people. But it was impossible to calculate even with approximate

Mr. Whiteside—continued.

accuracy the amount of grain stored away in the villages, for such accumulation had been made gradually and secretly for years, and though the divisional officers were certain that they existed, the owners would not for a moment admit the fact, partly from a fear lest they should be marked down for a grain dacoity at an early date, and partly lest the Government officials should refuse them State aid as the famine went on.

The real difficulty was lack of money to purchase food at existing high rates. These high prices were maintained throughout the past two years with singular uniformity, the result, of course, of the regular supplies received by rail and the admirable facility with which those stocks were carried from the railway to the chief market towns and villages in each taluk, and the numbers of persons who required work from the State to enable them to earn wages for the purchase of grain, or who in other respects became dependent upon the State for their support, were as follow:—

		No.	Per-centage of Population.
Relief Works	Adults	65,846	3.31
	Children	9,356	.46
	Total	75,202	3.77
Gratuitous relief-camps and village-reliefs	Adults	78,848	3.91
	Children	78,898	3.90
	Total	157,746	7.81
Grand Total.		232,948	11.58

These numbers corresponded in a very remarkable degree with a calculation that I made when Sir Richard Temple first visited my district in March 1877; and in future times of scarcity I expect they will not be exceeded, the condition of the district as regards roads and railways remaining as it is now.

Mr. Longley.

I admit that, if an accurate forecast should be made, it would be of great utility, but I am of opinion that this is not possible for the following reasons:—

- (1.) If the distress is widespread embracing, as in the present famine, ten or eleven districts, or in foreign countries, Burmah for instance, which draws away food-stocks from this country, the condition of the people can by no means be presaged considering the facilities now afforded for exportation, *i.e.*, sea-boards, roads, and railways. As an instance, I may say that the stress of the present famine would have been felt later on in Salem if there had been no exports to Maisur in the earlier stages of distress.
- (2.) Another element which lowers the value of the forecast is that the mere fact that the estimated stock in the country can feed so many thousands of people for so many days is no index to the quantity required to be supplemented, for, when distress commences and prospects appear doubtful, a great number of those agriculturists and proprietors of land with whom the stocks remain withhold contributing to the general market either in hopes of getting still higher prices or in view to guard themselves against the contingency of a greater scarcity, while merchants export all the grain they can secure to places where higher prices rule.
- (3.) It must not be forgotten that with distress people possessed of a limited supply of food begin to reduce their own rations. This reduction is in proportion to each person's means or other circum-

Mr. Longley—continued.

stances, so that a forecast based on the assumption, say, that a male or female of a given age would consume so much in ordinary times would fail to be of much practical value.

- (4.) But, supposing that the above elements are absent, there is still a difficulty in making an estimate; for, though the productive power of the country can be estimated, there are no reliable data on which to calculate the existing stocks in the country, as we have no information at present of the actual quantity of normal exportations and importations.

- (5.) Assuming the distress to be local, the data for a forecast are (1) the census returns which give particulars as to age, number, sex, &c., of the total population as divided into several castes and classes, and (2) the cultivation returns of the district. Ascertaining the average quantity of food consumed by people of different ages, sexes, and classes, an approximate estimate of the total quantity of food required is arrived at by the help of the census returns. The cultivation returns give us the area cultivated with different crops in Government villages. The average yield per acre of each crop being determined, the total average production of the district may be assumed. It should be noted here that there are no accounts either with Government officers or with Zemindars to show the cultivation in the villages belonging to the latter. In fact, Zemindars do not require such accounts, as they collect assessment on the whole holding irrespective of the circumstances under which lands are left waste. This also contributes to lessen the value of the forecast, though for the purpose of this calculation the proportion of cultivation to waste in Zemindaris may be assumed to be in the same ratio as in Government villages. The following is an estimate based on the normal consumption of the population of the food available for the Salem District (*vide* accompanying statement):—

	Acres cultivated.	Average Yield per Acre. Madras Measure.	Total Yield. Madras Measure.
Yield in years preceding the failure.			
Dry food grains.	1,422,393	350	4,97,837,550
Wet crops	114,427	400	45,770,800
Total	1,536,820	..	54,36,08,350
Consumption in the year according to the accompanying statement	..	..	3,67,541,130
Balance to the credit of the year in which the failure occurs..	..	..	1,76,067,220
Production in a year of half yield	..	..	2,76,804,175
Add the surplus of previous year on the assumption, say, that all above a year's surplus is disposed of	..	..	1,76,067,220
Total	..	..	4,52,871,395
Average quantity required for a day throughout the district..	..	..	10,06,962
Number of days for which the above quantity would suffice..	..	..	450

N.B.—Population 1,966,995.

The total yield of the district in the year in which the failure occurred together with the surplus of previous years in stock is sufficient to sustain the people throughout the year; but, as the stock is not distributed equally among all classes and peoples, importations would be required to feed that portion who, if the market is not supplied by stock-keepers, are unable to purchase food-grain.

The census returns furnish information as to classes who would be able to purchase in times of distress, "occupation" being taken as a standard for determining the same.



Mr. Longley—continued.

Persons of the following occupations may be classed as "able to purchase":—

Government Service.
Military.
Learned Professions.
Traders.
Conveyers.
Domestic Personal Service.
Cultivators of large holdings.
Industries—
Food.
Metals.
Construction.
Books.
Indefinite and Non-productive—
Property.
Unproductive.
Others.

N.B.—These classes include holders of stocks as well as those who depend upon the market.

The following classes may be taken as those unable to purchase when high prices prevail:—

Professions—
Minor Professions.
Agricultural—
Small Cultivators.
Industrial—
Dresses.
Household goods.
Combustibles.
Laborers.

These are the classes who require to be relieved by the State. As the number of the adult male population of the several classes is given in the census returns, an estimate can be formed of the numbers of their women and children on the basis of the district ratio. But it must be remembered that all the classes above mentioned will not come in for State aid at once, for, as above stated, they first reduce their rations, and for a considerable period stick to their homes and villages. The numbers, therefore, that will have to be relieved will increase as the distress becomes intense, so that no estimate of them can be formed.

The classes to be relieved are stated above. A great number of mendicants in Southern India do not go to camps or works.

I do not expect any numbers when the failure is one-third or half in the first year, but when it fails three-fourths, then the ryots of small holdings begin to dispose of their live stock, &c. In the absence of necessary materials, and considering the difficulties above indicated, I cannot form an approximate estimate of the numbers that will have to be relieved by the State at the different degrees of failure mentioned in the question, but merely enter the numbers (according to the Census of 1871) which will have to be relieved in the height of a famine in the succeeding years:—

	Men.	Women.	Children.
Minor Professions	7,722	7,799	9,778
Dresses	40,056	40,456	50,722
Household goods	4,904	14,953	6,209
Combustibles	424	428	536
Laborers	118,206	119,388	149,684
Sixty per cent. of cultivators ..	201,792	203,814	255,534
	373,104	376,838	472,663
Total ..	12,22,605		

Mr. J. G. Horsfall.

The population is now pretty accurately known from our Census returns. We get returns also showing the extent of land sown with food-grains and approximately the quantity of the produce, so that there would be no great difficulty in calculating what proportion of the population could be fed upon the produce of any single year; but other ingredients step in to make the calculation anything but a simple or certain one. The result of previous harvests, the stock of grain in hand, are most important; the resources of the district and its production of other than food-produce are important disturbing elements. Then again statistics as to the food-grains and other produce in zemindaris are not forthcoming. This needs correction, if necessary, by legislative enactment. The condition of other districts and other markets has also to be taken into consideration, regulating, as they do, the probability of exports and imports, for the merchant will not be deterred from exporting food-grains from a district already in famine if other markets are more favorable. Still the primary considerations are the population to be fed and the amount of food-grain produced, and with these as his data, with due allowance for other disturbing elements, a pretty accurate estimate may be formed as to the proportion of population likely to be dependent upon relief during the next few months of any year. Our Census returns at present supply a sufficiently accurate estimate of population. Our statistical returns are not by any means so accurate, and are wanting altogether for zemindari lands which are in this district at any rate by no means an unimportant factor. The estimated yield in food-grains of a fair year in this district excluding zemindari lands is 450,000, the population of the same being about 1,150,000, the quantity required for consumption being

* N.B.—This cannot be right if the candies were intended to denote the usual measure of weight. Tons would be near the mark.

estimated at 300,000 candies,* thus giving a very large surplus to store and export. The produce and population of zemindari tracts may be assumed to bear the same proportion, thus giving estimated produce of food-grains at 560,000 candies, population 1,450,000 with a consumption of 380,000 candies, leaving a surplus of 180,000. Thus half an average crop would leave 100,000 candies to be provided from stored grain or imports; that is, over 300,000 would be without food. These must be fed by imported grain and by grain already stored.

A failure of one-third crop only would merely reduce the amount otherwise available for exportation, but would not necessitate any relief measures at the hands of the State.

It is questionable whether the failure of one-half the crop would even necessitate State interference. The crops in this district for the year 1877-78 were estimated at little more than half an average crop, and yet no relief has been administered since the commencement of the year. Prices have pressed very hardly upon all three classes, but actual State assistance has not been found absolutely necessary.

The loss of three-quarters of the crop would leave sufficient produce to meet the wants of one-third of the population only. Two-thirds of the population would be dependent in such case upon stored grain and importation. I should expect 5 per cent. of the population to come upon relief in such a case.

For the reasons stated above the loss of one-third crop in two consecutive years would not entail any State relief.

For a second year with only half a crop the proportion to be relieved would not exceed two per centum of population. As a matter of fact, after two years with only half the average yield, we have now in this district no relief measures or State aid whatever.

Mr. J. G. Horsfall—continued.

In the case of three-quarter failure of crops in two successive years twenty per centum would probably require Government relief.

Mr. C. S. Crole.

It may safely be assumed that there is always in stock with the ryots food sufficient for the whole district for eighteen months, and that the numbers requiring to purchase food in an extreme case would be 400,000. Half an average crop would probably suffice for bare subsistence for the whole population of 914,432 inhabitants of Kurnool District.

The numbers likely to fall on the hands of Government might be expected to be—

- (1) if the crop failed by one-third in two consecutive years, none;
- (2) if it failed by half, none in the first year and 150,000 in the second year;
- (3) if it failed by three-fourths, first year 25,000, second year 350,000.

Mr. Pennington.

I have no confidence whatever in estimates of crops or estimates as to the extent to which crops have failed, nor in estimates of the number of people likely to come on relief. All such calculations are dependent on a vast number of considerations as to which any mere District Officer must be very much in the dark.

Mr. Price.

I should start by assuming that the population of the district consumed, on an average, $1\frac{1}{2}$ lb. of grain per diem, which, from frequent observation long before the famine, I believe to be a fairly correct estimate. I would then take the area of crop actually reaped in the preceding year and the area cultivated in the year up to date or the forecast, compare this with the cultivation at the corresponding period of the previous year, and so make some approximate estimate of the cultivation for the whole of the year under consideration. I should then calculate by taking the reported outturn of the previous season, and making such deductions for the difference so far observable in the two seasons, as appeared to me to be right, what the probable outturn would be, and, by putting this into pounds, would be able to estimate for how long the people of the district could be supported by the crop of the year for which the forecast was made, and how much grain in the way of stock might be taken to be in hand. In a district such as this it is with rare exceptions that any stock of more than a year's standing is kept on hand. In Cuddapah and Bellary, where much grain is buried, it is absolutely impossible for any reliable estimate of what stock of grain is really stored to be made. The sequel of the famine showed clearly enough that, in places where the most experienced native officials stated the opinion that there was no grain whatever, large quantities were hoarded. I see no other way than that suggested of framing a forecast; at the best no officer, even one intimately acquainted with his district, can make anything but a very rough calculation. If he allows, on the unfavorable side, a liberal margin for error, he will place himself, though he may not be very accurate, on the safe side.

Take that the average annual crop of food-grains of all kinds in this district is 279,812 tons (which is something about the mark). Half of this would be 139,906 tons. The population as per census of 1871 was 940,747. Allow a daily average consumption of $1\frac{1}{2}$ lb. per head. This would give 222 as the number of days for which the population of the district could be supplied. The difference would

Mr. Price—continued.

have to be made up by importation. The estimate of the number of persons who would probably be able to purchase food would entirely depend upon whether the failure of crop was for the first or second time; a failure of one-third would for the first year cause no appreciable indication of pressure, excepting perhaps that prices might rise a little; a failure of half would cause a demand for employment towards the close of the season, which ought to be met easily enough by the ordinary work of the district; and a failure of three-fourths would probably create a necessity for small special works, but not relief at home. As to what the percentage of the population which would thus come upon relief would be I can form no estimate. I would not have touched on the subject at all had I not seen in 1866 the case of a failure of three-fourths crop in the Salem District. There was then certainly no visible distress in villages, but the people clamoured much for work. Some comparatively small sums were spent upon new roads, but what the proportion of people who came upon the works was I have no means of stating. I recollect that they were in the main agricultural laborers. A failure of one-third for a second year would not, in my opinion, throw any appreciable number of persons unable to buy food on the hands of the State; a failure of half would call for assistance on the part of the State to 10 per cent., and of three-fourths crop of something like 20 to 25 per cent. The figures of relief operations should, in my opinion, most decidedly not be taken as the basis of any calculation as to how many persons out of the population of any particular district may, under certain known conditions, be expected to come upon the hands of the State in the event of the failure of crops. I make this remark in reference to my personal experiences in the districts of Bellary, Cuddapah, and Chingleput. My reason for it is that I am aware that very many individuals were admitted to relief of all kinds who ought not to have been.

Mr. Webster.

Distress was at its worst about September 1877, and Government then had on its hands 241,763 persons. This number included not only the field-laborers, urban poor, and mendicants, but petty landholders, weavers, and artisans, and I believe that even this number did not include all who really required relief, for the relief-works were not well understood and were unpopular. It is not possible to frame an accurate estimate of the numbers likely to require relief from the returns of gratuitous relief given before closed camps were established, for the open relief-houses afforded no security that persons relieved were really in need of relief. I will therefore, in making a calculation, deduct 10 per cent. from the number in gratuitous relief in the feeding-houses, which may be taken to represent the numbers improperly obtaining relief. There was no famine of food in this district during the late distress, that is to say, grain was always procurable for money. I do not know whether, in the event of there being no scarcity of money, the imports of grain would have been sufficient; probably they would not at first, as the railway was badly off for locomotives, but, as soon as the number of locomotives was increased, the imports would have increased with the demand. The demand was, however, kept down by the inability of the people to purchase; and therefore, as a matter of fact, there was no food famine. I will therefore assume that all who were on relief at the height of the famine (excluding the 10 per cent. deduction) were unable to purchase food, and to this number I will add the estimated decrease in the population either by death or emigration as shown by the trial census or 11 per cent., which amounts to 191,730.

Mr. Webster—continued.

To this latter number must be added the estimated increase of the population since the Census of 1871 at 1 per cent. per annum for, say, seven years, which gives 122,010. The total decrease as per Census is therefore 313,740. The calculation will therefore be—

Number on works, September 1877	...	...	26,867
Nine-tenths number on gratuitous relief	...	...	167,931
Money-dole	...	...	28,307
Estimated decrease of population	...	...	313,740
Total	...	...	536,845

From this must be deducted the number of recorded deaths among the recipients of relief from the commencement of the famine to date or 18,530. The above calculation results in there being, in September 1877, 518,315 persons, or about 29 per cent. of the population unable to purchase grain. In October 1876 prices rose and distress commenced in November, and in January 1877 the numbers on relief-works were 28,460 and on gratuitous relief 58, or say 28,500. It is probable, however, that this number did not include all who were unable to purchase and who required relief. I will, however, confine myself to the actual figures, which gives 1·6 of the population. To this must be added those dependent on charity or 2·13, which gives 3·73 of the population as unable to purchase when the crops have failed one season to the extent of one-third. The 1877-78 crops failed to the extent of half. The number on relief in June 1878, when the season's crops had been harvested and prices had reached their maximum for the year, was 56,308; adding to this the estimated decrease of the population after deducting the recorded deaths, 295,210, gives a total of 351,518 persons, or 20·1 per cent. of the population, as unable to purchase grain in the current year. The following summary shows the result of the calculation:—

				Percentage of Population unable to purchase.
1875-76 loss of crops one-third	...	...	...	3·73
1876-77 do. three-fourths	...	...	...	29
1877-78 do. half	...	...	...	20·1

It is difficult to estimate the increase of destitution for successive years of equally short crops, for the increase would be far greater with a continuous heavy, than with a slight loss. For instance, if in 1876-77 the crops had again failed to the extent of one-third, the number requiring relief would probably not have doubled, while, had the 1877-78 crop failed to the same extent as the 1876-77 crop, instead of the percentage during the current year being 20·1, it would have been more than double that for 1876-77.

I cannot give the proportion of the classes mentioned in the question likely to require relief, because I have no means in the short time allowed of forming an estimate of their numbers.

Mr. Grose.

Generally Tahsildars can be trusted to estimate approximately the extent of crop reaped in any month and the quantity of grain thus obtained; but the amount of grain in stock when a famine begins is always a very doubtful question, and no estimate of it can be formed unless the exports and imports at the land frontier are recorded. This will be an expensive work, but it seems to me necessary. It is particularly desirable that the traffic on the canal should be known. It has been estimated that in the part of Nellore which is not under Zemindars the outturn of food-grain is 300,000 putties (or tons), the consumption 255,000, the amount required for seed-grain and gram given to cattle 15,000, and the surplus 30,000.

Mr. Grose—continued.

The only way of estimating the numbers who will come upon relief is by referring to previous experience. It is impossible to say what numbers will need relief after successive failures of crop to a particular extent, because this depends on the quantity of grain in stock, on the prices prevailing in one district compared with others, especially those on its frontiers, and on the consequent course of importation by land and sea.

Mr. Martin.

Most villages may be presumed to have undergone a survey more or less accurate, and the qualities of their soils are generally more or less ascertained.

In a district through which the Settlement Department has been, the first thing to do is to divide the range as nearly as possible into portions which have received good, bad, and indifferent rainfalls. Then get an account drawn out, showing the different areas under each particular soil in these various sub-divisions of the range.

The average return from each particular soil can also be ascertained from the Settlement Returns, and the question for the District Officer to determine from consultation with his subordinates and others, corrected by the evidence he gains from touring through the affected parts, will be—What has been the effect on the average return of grain where the rainfall has been either indifferent or bad?

In districts where there has been no settlement, it will not be possible to estimate the average produce so correctly, but a fairly correct idea of what it is for each particular soil might be recorded for each district according to the settlement calculations, it being assumed that land is of the class represented by its assessment.

Assuming that every District Officer has—as he ought to have—data for calculating the average crop of the different kinds of soil for each kind of grain, the District Officer ought to be able, with the aid of the cultivation returns, to compile a pretty accurate estimate of the actual average crop of each of the sub-divisions he makes of his range, and from observation and actual measurement he must calculate how much short of the average each part of the range is.

The sum total of the yield of the different ranges will be the total food crop of the district.

I append to this question the forecast report I made for the division in January 1877, in which I have given the data on which my calculations were based. If the failure of rainfall over a whole district was nearly equally distributed, I should say that a failure of one-third the average crop would only produce scarcity and not famine, and that in all probability no relief would be required; but if the rainfall is so distributed that the better parts get an average crop or nearly so, that the indifferent parts get one-third below the average, and the bad parts half below, there will be scarcity requiring relief in the first parts only. Similarly, with regard to the failure of half and three-fourths of the average crop, the seriously-affected area will vary with the distribution of the rainfall and the extent of the good and bad parts; also if there are two consecutive years of famine, one-third failure may be followed by half or three-fourths, half similarly by one-third or three-fourths,—in fact, the number of combinations of circumstances are very great.

In this division I should say that a failure of one-third of the average crop even for two years would not produce a necessity for relief. If half the average failed, I should expect that relief would not be required if the failure was equally spread, and if the rainfall was sufficient to produce wild vegetables and to prevent the fish and other animals which live in the water from dying, but if this failure

Mr. Martin—continued.

of half was not equally distributed, there would probably be distress in the part where the average production falls below half, and the distress would vary with the extent of failure; thus, in a tract inhabited by 100,000 people I should expect to have seven thousand on relief if the failure extended to three-fourths. If this distress was repeated for a second year, I should expect to have fifteen thousand of the people of this tract on my hands, and moreover people from both the tracts in which the failure was both half and less because of the high prices. The numbers would in all probability be 5 per cent. of the whole population of these last tracts.

If the failure was three-fourths the average, this would probably mean that there was no production at all in part of the tract, and that only a small part would have as much as half. I should expect to have 10 per cent. of the whole population on my hands before the first year was over, and if the distress was continued for a second year, I should not be surprised if the numbers went as high as 30 per cent. It is exceedingly unlikely in this division that a failure amounting to even half of the crop will be protracted, for any heavy rain, even though it may be sufficiently heavy to seriously damage the general harvest, must supply the wells, and the moment the wells are supplied, labor is available and a crop is put down. In a very bad season the crop raised comes to market in sixty days, and as the wells are capable of yielding a total weight of 33,000 tons, the relief from them will be very rapid and will speedily alter the ratio of the production to the average.

Mr. Austin.

The condition of the people when famine is imminent consequent on the failure of crops can be previously ascertained by the Divisional Officers from the monthly cultivation accounts, the rain register, reports on the state of crops, and the register of prices of grains received from the taluks. These when compared with the figures of the corresponding period of some previous (good) years will serve as data for making the calculations. The produce of the sub-division is almost equal to its wants with the usual stock. If one-half of the produce fails the balance that is saved (with the stock of the previous year) will suffice for nearly two-thirds of the population. Of the remainder, the number that will have to be supported by Government, will be roughly as follows:—

For the first year when the failure is—

$\frac{1}{2}$	0	of the population.
$\frac{1}{3}$	2	per cent.
$\frac{1}{4}$	5	„

For the second year when the failure on the previous year was

	—	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$
And this year the failure is—	$\frac{1}{2}$	0 per cent.	3	4
	$\frac{1}{3}$	3 „	5	8
	$\frac{1}{4}$	4 „	10	12

Prices considered with the rainfall and the actuals of the past harvests will give as good a forecast as the most elaborate one that could be imagined. The Cuddapah ordinary rainfall is from April to September 22 inches. October to December $10\frac{1}{2}$ inches. In 1876 seven inches fell in the former period, and only half an inch in the latter.

Mr. Austin—continued.

In my opinion there was a total failure of the great cholum crop of 1876-77 in Jammulamadugu, with a partial failure of the smaller and less-important September crop, and this brought almost the whole of the field laborers and the artisan and inferior classes on the hands of the State by the following August; but things were nearly as bad in June and July, prices having risen still more in those months as the rain held off. Another element that might vitiate calculations is the extent of irrigation that goes on from wells during a famine: about three crops were raised in 1877 from wells in the Pulivendala Taluk and in a small portion of Jammulamadugu and parts of Proddutur.

Mr. Knox.

At the commencement of any period of distress consequent on failure of harvest there would not in general be any lack of food; probably the stock in the country would be quite sufficient to supply all with food though at greatly enhanced prices. The chief cause of distress would be the inability of the poor to procure the means to buy food owing to there being little or no work for them.

As famine increased and the area affected become larger, it would no doubt be very necessary for every District Officer to keep himself informed, by careful inquiries made in every village, of the stock of grain in the district and the quantities imported; but such inquiry would not, I think, be absolutely necessary at the commencement. The chief thing to be considered then would be to what extent there was a demand for labor; this would be the test by which to judge of the degree of distress among the classes first affected by famine.

If there was no demand for labor we would have all the laboring classes almost immediately on our hands; if the demand was one-third, half, or three-fourths of what it usually is we would have roughly speaking two-thirds, half, and one-fourth of these classes to provide for. But it by no means follows because the crops failed to the extent of one-third, half, or three-fourths that therefore the demand for labor would be diminished in the same proportion. Although the grain failed there might be abundance of straw which would give labor for some time in cutting and stacking. It is I think impossible to lay down beforehand what proportion of the people would be on our hands in consequence of the failure of the crop to a given extent. The numbers on our hands would depend upon the state of the labor market, and how far that was affected by the bad harvest would have to be determined at the time on a consideration of all the circumstances. Special inquiries would have to be made as to the nature of the failure and as to whether there was still any work in the fields or any special work. It would also help in determining these points if inquiry was also made to ascertain how far vagrancy was rife, and whether there was much crime, and of what kind.

Mr. Soobien.

The approximate extent of the failure of the crop of food-grains and the number of people in the district to be fed should be ascertained. It should then be calculated whether the food-supply supplemented by the surplus, if any, of previous year's food stock and by imported food (if the district ordinarily imports food) would suffice for the population to be fed, and if it is found to be deficient then it may be assumed that the condition of things is not normal and that people will have mainly to live on imported food. Speaking of Madura Taluk its population is 231,796 who at an average rate of

Mr. Soobien—continued.

15 oz. of food-grains per diem would require approximately 35,410 tons per annum. Supposing the approximate quantity of the food-grains saved in the taluk to be 15,000 tons, and supposing the surplus of food stocks of previous years to be 3,000 tons (information on which head, however, is very difficult to be had with any degree of accuracy), and supposing that it ordinarily imports food to the extent of say 1,000 tons, the quantity of food supply thus arrived at is 19,000, which is insufficient to meet the requirements of the people, and the deficiency, viz., 16,000, must therefore be made up by adopting special measures for its importation. If half the average food crop has been lost, it should be calculated on the same way to find out for how many months the crops saved would suffice. The rest will have to be fed with imported food. The requisite quantity of food having been brought to the district, it is not possible to frame at the outset an estimate of the number of people who will be able to purchase food and of the number who lack money to purchase it. This can be ascertained accurately, I think, only from subsequent experience and the progress of events. As the famine progresses the numbers requiring relief will continue to increase, and those who were able to support themselves at the early stage with their private means will, as the famine advances, find their means exhausted and be compelled to have recourse to State relief. Perhaps the following method of calculation may be adopted in arriving at a rough estimate of the number that will require State aid:—One-fourth of the agricultural class and one-half of the laborers and 10 per cent. of the rest of the

* This is obviously a mistake; the proportion of the rest of the population to the adult males is about 2 to 1 and not two-thirds.

male adult population *plus* two-thirds* of the number thus arrived at being their females and male children under ten years of age will, I think, represent roughly the number requiring State relief at the early stage of famine; two-fifths of this number will roughly represent people who are capable of work and will have to be relieved by providing labor and the rest those requiring State gratuitous relief. This is based on the assumption that in a family consisting of five members two will be capable of work and the rest

One-fourth of the agricultural class ..	= 11,740
Half of the laborers ..	= 7,250
Ten per cent. of the rest of the male adult population ..	= 2,160
	21,150

Add two-thirds of this number, being equivalent to their females and children ..	= 14,100
	35,250

Two-fifths of this number or persons capable of work ..	= 14,100
Three-fifths of this number or persons incapable of work ..	= 21,150

being two children and an infirm dependent will be incapable of it. The figures noted in the margin have been arrived at by using the above method of calculation with reference to the population of the Madura Taluk taken from the Census book.

In the first as well as the second year, if the failure of crops is to the extent of one-third, no State relief will be necessary. Equally will it be unnecessary, I think, in the first year if the failure of crops is to the extent of half as the people can manage to meet the distress by their own private means. In the second year of a failure of crops to the extent of half as well as in the first year when the failure is to the extent of three-fourths, the figures arrived at as stated before will represent the number who will require State aid. In the second year, if the failure is to the extent of three-fourths, the number will have to be trebled.

It must be stated, however, that in this district emigration to Ceylon, &c., is habitual and relieves the strain on the food-supply to some extent in all the years. The actual numbers that will require State relief will, therefore, in case of a demand for labor existing in

Mr. Soobien—continued.

Ceylon, be considerably less than the figures indicated above which are based on a calculation with reference to the population of the taluk.

Vencatachellum Puntulu.

One year's partial failure of crop does not tell much upon the people. It will do so if the consecutive second year's crop also fails.

If the second year's failure is one-third, I expect to have 10 per cent. of the population; if half, about 20 per cent.; and if three-fourths, about 30 per cent.

Seetharamiah.

The forecast of the condition of the people during the approaching season, following any more or less failure of the ordinary harvest, will be of great utility as stated in the question; but it is almost impossible to make an accurate one from the present available means of information. An approximate estimate can, however, be made in the following way. At the end of each official year a return showing the area of land cultivated with several descriptions of crops is prepared by the Tahsildars and submitted to the Collectr. In this return the quantity of produce of each kind of grain, calculated upon a rough estimate with reference to the state of the season of the year to which it belongs, is given. From this return we can learn what estimated quantity of food-grains has been harvested, and if, in addition to this, information can be procured to show the extent of imports and exports both by the rail and roads, which at present we have no means of knowing, we shall be able to ascertain the total quantity of food-grains available, and determine how far that quantity will meet the local wants, and what will be the consequence of the deficiency. So far as my own experience of the Pulladam Taluk goes, I consider that the quantity of food grain locally produced in an ordinary good year, is just sufficient to meet the local requirements of the taluk for twelve months, or until the early crops of the next year are harvested. I believe that, except in adverse seasons, imports and exports do not show any marked difference between each other. If one kind of food-grain is exported, it is counterbalanced by the arrival of another kind of grain imported from other places. The chief articles of produce exported from this taluk are cotton, tobacco, Bengal gram, horse-gram, coriander, and betels. I presume, therefore, that the local produce of cholum, raggy, cumboo, samai, thenai, and varagoo, which are the staple articles of food among the agricultural classes, and their laborers in this taluk, are consumed by the local population. Paddy is not grown in this taluk to any perceptible extent. The data on which I base the above conclusion is illustrated below. The fasli year 1284 (1874-75) was considered to be an ordinary good year. The area of land cultivated with food-grain was acres 282,353, and the outturn was estimated at 13,104 garces, each garce being equivalent to 3,200 Madras measures, each measure containing 120 tolals weight. The population of the taluk for fasli 1284 (1874-75), as per census taken in 1871 was 236,300, viz:—

Men and women	...	157,540
Children	...	78,760
		236,300

The quantity of grain required for their maintenance calculated at half local* measure per

* A full measure is equivalent to 144 tolals weight. diem for each adult, and quarter measure for a

Seetharamiah—continued.

child, is measures 43,155,505 the available quantity being 41,932,800 measures. With this quantity and with their savings of the previous year they managed to subsist until six months after the beginning of fasli 1285 (1875-76) which year being again a bad one, the crops suffered a good deal, and the harvest yielded only an estimated outturn of 6,256 garces of food-grains on 269,436 acres; thus showing a deficiency of more than half the quantity required for a year. People, however, managed to pull on until the end of the year, but the season for fasli 1286 (1876-77) being worse, the poorer classes of ryots and agricultural laborers were reduced in circumstances, and distress began to stare at their faces during the second half of the year 1876, and they had to seek for their subsistence by other than their usual occupation. The area of land cultivated in fasli 1286 (1876-77) with food-grains was 243,044 acres, and the estimated outturn was 2,945½ garces, or above ½th less than the required quantity. About ¼th of the population of this taluk consists of agricultural laborers with their families and children, and about ¼th forms petty landholders whose annual rental is less than 10 Rupees each. The majority of these two classes were the parties that first felt the effects of the distress. They managed for a time, that is, for about four or five months after the beginning of the fasli 1286 (1876-77) by sale of their household chattels, roofs, and doors of houses, &c., for their subsistence, and subsequently having no money to purchase food-grain, they had no alternative but to have recourse to begging for work or gratuitous relief. The number of persons at the hands of Government when the distress was at its height in September 1877 was 63,438, consisting of agricultural laborers, petty landholders, urban poor and infirm dependants or mendicants as detailed below—

In open relief-houses	51,766
In closed relief-camps*	7,380
In receipt of money dole. . . .	1,515
On relief-works	2,777
	63,438

Of this number, about 10,000 would be persons who came from adjoining distressed taluks, and 53,438 persons may be taken as forming part of the local population. From the above statistics it would be seen that when the crops failed in two successive years to the extent of half in the first year and three-fourths in the second year, relief had to be given to 53,438 persons out of a population of 236,000 belonging to this taluk. Past experience shows that if the food-crops failed to the extent of one-third, whether in one year or two consecutive years, there will be no necessity for Government aid in any shape. If the failure be half in two consecutive years, the first year would require no assistance from the State, but in the second year one-fourth of the laboring class, or about 10,000 persons, who, it is feared, would get no employment in the fields, will have to be provided with works. About 3000 persons of the urban population and of the class of mendicants will also have to be provided.

Mr. Weekes.

I would not put the slightest confidence in the accuracy of any forecast of the kind even if Mill himself with experience of the subject to boot made it. In the first place no one dares more than to guess at the food-stocks.

* Open relief-houses.

Mr. Weekes—continued.

Then there are (1) importation, and (2) exportation to be considered, and (3) the operation of high prices. Exportation is not checked by extensive failure of harvest, but is often intensified thereby, the cause being the first that high prices combined *with abundance of capital*, and not high prices alone, draw grain from one place of country to another. Given equally high prices and failure of harvest in England, Russia and America, grain will be attracted from both Russia and America to England, the richest country, unless exportation is interfered with.

High prices induce people to eat only one meal a day, or at any rate less than in an ordinary year; so that half the usual harvest, were it distributed as usual, would support the whole population if they only ate half as much as usual. Of course, it would not be distributed as usual, but wherever it reached, it would go twice as far as an ordinary harvest, except with the richest and unproductive classes.

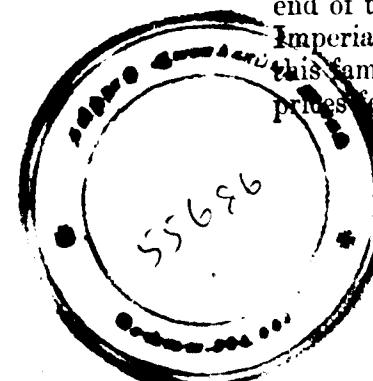
As regards the distribution that would probably be effected, the field-laborers would get their share of the harvest, and would eke it out in some way, and the other classes mentioned would, I think, tide over the failure of half the ordinary harvest if the season following were favorable. All would eat less. It should not be forgotten that a considerable portion of the ordinary laborers are always supported at certain seasons of the year by Government by employment on repairs of roads, &c. Then the richness or poverty of the people in general must be taken into account, and the character of the previous seasons and harvest; and last not least, the question whether Government intends to realise its revenue, the whole or a part at once or subsequently. A comparatively rich peasantry could well tide over not half an ordinary harvest failure, but the failure of more than a whole year's harvest. The well-to-do Cuddapah ryots have done so; but have lost nearly all the fortunes they made in the Lancashire Cotton Famine.

I think the price of food-grain a better criterion than the best calculations that could be made which must necessarily admit such varying and uncertain elements as those I have mentioned. Prices are the result of practical calculations made by the most interested, keen, and most extensively distributed judges of the condition of the food-supply—the grain-dealers. They are masters of the situation, and I do not think they can be fairly charged with having made an improper use of their power by combining and forcing prices upwards.

High prices there must be when harvests fail; but they have a good effect in restraining waste and limiting expenditure as much as possible. They are regulated by the most sensitive of tests,—the interest of the grain-dealer. The district officer ought to be not very far behind the grain-dealer in his estimate of the situation, and should be able to tell whether prices are likely to fall or rise. Here his knowledge of the character of the last and preceding harvests should come in.

High prices continuing for a long time mean intensity of famine or scarcity.

Prices in Cuddapah rose very suddenly in October 1876 till in the 31st December raggi sold at 6·8 seers against an average price of 21 to 30. This meant the great dread of failure of the great cholum harvest of the black cotton soil begun in October and realised by the end of the year. There must be famine with common grain at 10 Imperial seers. It was not till November in the following year that this famine rate gave way, and in the height of the famine in July prices fell to 7·14 cholum, 7·59 raggi, and 6·70 sujja. By the end



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M79:1

Mr. Weekes—continued.

of November famine was virtually over in Cuddapah, though the great cholera harvest did not begin till January.

In the height of the famine, with prices at their worst, very nearly half the population of the Jammulamadugu Taluk were supported by the State; which is the proportion at which the laboring and artisan class of the taluk are estimated, viz., coolies 47 per cent., artisans $3\frac{1}{2}$ per cent., the total population being 109,965. Proddutur, a richer taluk of about half the size of Jammulamadugu (343 against 670 square miles) but paying a greater Government revenue (2,27,015 against 2,11,152), had not any thing like the same proportion on the hands of the State.

Mr. Oldham.

In reply to this question I will only state that if the crop in Adoni failed to the extent of one-third for one year, I would not expect to have any persons relieved by the State upon my hands; while in Chumparun (Bengal) a failure to the same extent would bring upon them from 3 to 7 per cent. of the population.

Mr. Goodrich.

No district of Madras can be spoken of as a whole as being isolated, or depending absolutely, as Orissa did in 1866, upon her own stores for food. Grain can at all times be landed at the port of Vizagapatam. It can, of course, also be shipped, and it is the famine in the South and not the failure of last year's monsoons that caused distress in 1877-78. The import of grain from Bengal and Burmah was easy, and would have been remunerative had far lower prices than we were paying been current in Vizagapatam. Prices in the South, however, being at famine rates, merchants, of course, would not take much less for grain at Vizagapatam than they could get for it in Madras. The prices current in the South in the first half of 1877 induced holders of stocks in Vizagapatam to export in a reckless manner. The scanty and partial south-west monsoon was followed by a total failure of the north-east monsoon, and though about ten annas of a crop was obtained the lowness of stocks caused all who had money to buy for their own granaries. It must be remembered that 1876 only gave a twelve-anna crop, so that only a crop and a quarter resulted from the two seasons. This is a serious failure when it is considered that the district has no permanent surplus of food worth mentioning, and has imported almost exactly as much as it has exported of food-grains during the last twenty-five years. Its exports of gram, sugar, fibres, oil-seeds, and forest produce are large, and it has abundant money to buy food when needed.

The experience of the two years proves that it takes a failure of one-third of the crop two years running aggravated by the pressure of prices trebled by depleted stocks, and by import being possible only at famine prices, to bring any very large number of the people to apply for aid. At no time have 20,000 been living on alms publicly given.

There has been much economy of food resulting from the early enhancement of price which famine elsewhere caused. There has been no sign of lack of money to buy food excepting in the month of June 1878, when the monsoon was late and no work on the roads was being prosecuted. With the monsoon which in July was copious work in the fields became plentiful.

As I have said before, we had only a crop and a quarter in 1876 and 1877 instead of two crops. Imports from Palkonda we largely received; much grain which in an ordinary year goes to Calingapatam for shipment coming southwards and much coming down from Jeypore. Still in 1877 we exported 14,647 tons and in 1878 imported only 9960* tons at our own ports. The export was mainly ragi, the import mainly rice.

* Up to September 1st.

Mr. Goodrich—continued.

I have no information as to the number of tenants in Zemindaris and the size of their holdings; this being unknown, the numbers of field laborers and of cottier tenants little better off cannot be estimated. If the crops fail one-third, prices will rise somewhat; if they fail to the extent of half, they will rise somewhat more. No person can remember a failure amounting to half of the whole crop of a whole year. The district is intersected from north-east to south-west by the forest-clad range of the Eastern Ghats, which rises to 5,600 feet. It receives rain from both monsoons, and a year unfavorable to wet crops may be a good one for dry, and *vice versa*. Last year was the nearest approach lately observed to a failure of both monsoons; it followed a bad year, but the numbers who came for relief to the Zemindars' Amins at their Thanas were never over 20,000.

It is impossible to say how many would have come had relief been given to all comers. The Zemindars, as a rule, did their duty by suspending demands for rent and giving food to the destitute to some extent.

QUESTION 6.—What measures should the district officer adopt for relief, supposing that he believes the distress to be temporary, or is not satisfied that it is indicative of approaching famine? Should applicants be first employed as far as practicable on the ordinary works in progress, whether under provincial or local officers or under agents of the Public Works Department or Municipalities? Under what tests should applicants be admitted? Under what circumstances may it be desirable to open special works? How should such special works be arranged? Whether so as to collect the applicants in comparatively large numbers at a few localities, or to give them employment in smaller bodies at many places in the distressed region and in the vicinity of their homes? May such works be best placed under the Public Works Department or under Civil supervision? State the argument in favor of, and against, either course. How may the Public Works Officers be best placed in communication with the District Officers for these purposes? How should the Public Works Officers be guided in their selection of works for relief? And on whom should the responsibility rest, in the district, for seeing that all needful steps are taken by all branches of the public service concerned?

Sir W. Robinson.

As tropical famine becomes better understood as respects its pathology and influence on death and birth rates alike, its incidents (social, climatic and other) and its duration, the theory that a tropical famine is a thing to "work" vigorously as a primary principle of administration—that a declining atrophied and discouraged population may be sternly tasked (with little reference to age or sex) at a minimum expense for subsistence, may possibly undergo some cautious modifications in the light of some unexpected consequences. Some of the discouraging and restrictive "tests" which are urged on famine officers may be found to be ill-adapted parodies of workhouse condition in England, such as tell seriously in this country, and amongst Oriental populations and surroundings against the object of tropical famine administration—viz., the rescue of life under dire and protracted peril—and if any failures of the Madras Famine Administration in some of these respects help the Commission to form sound conclusions on such matters, lasting good may be derived from their study. I have already stated in my replies to Mr. Ballard's questions, where I think attention and relief is first needed:—viz., in the villages and homes of the distressed where circumstances are best understood and forecasts can best be made; but if the district officer has failed to make up his mind as to what is before him, probably the less he does, beyond relieving immediate

Sir W. Robinson—continued.

distress and checking mass-wandering at its sources in the villages, the better. The needed relief will generally be small, except as regards women and children. These should first occupy earnest attention, in order that they may be kept at home.

Assuming that some scattered and ordinary works of the district are organised and in progress, they may obviously be extended under whatever agency is in charge; and inability to get food and fitness for labor are the only reasonable and safe "tests" that can be hazarded.

When famine has established itself special works must be opened for those still fit to labor, as organisation can be overtaken. Works without tools, supervision, &c., are costly, exhausting, and futile. They lower the whole tone of administration for the future; and as such had better await organisation even at the cost of more extended local village relief. The fewer early large promiscuous collections of shelterless starvelings together the better; and the nearer their homes they can find work the less confusion and embarrassment as well as cost and waste of life. In this respect the lines laid down by the Government of India in the early stages of the Madras famine were excellent. There ought, however, to be no "inefficients" on works. Inefficient labor from famine causes, means waste of money and waste of life in the long run. It were an interesting—in some respects a very sad—inquiry to follow the history of the multitudes of "inefficients" who clung to our early labor gangs in this Presidency so long as they had strength to muster, and then fell off—probably in most cases into their graves. We did not follow their future.

No famine children should be allowed on works of any kind. The futile three-pies allowance and the incidents of its ministration during the late Madras administration, told greatly against these feeble lives throughout the period of our struggle.

Works should as far as possible be organised under Department of Public Works Officers, but that department should be under the direct control of the Civil Administration of the district. Nothing could have been more embarrassing, more detrimental to public interests and the real object of providing life-saving labor, than the want of rapport which more or less prevailed in many, if not most, of the famine districts of this Presidency during the early months of our famine, and more or less throughout, as between the district administration and executives of works. This weakness of rapport was perhaps inherent in the organisation, and will not I fear be lessened by the recent changes made. I was a Member of the Department of Public Works Commission which sat in 1869-70 as respects the organisation of the Department of Public Works as we found that it then worked—and again more recently I have had to record my views on this important matter. To the former report I must refer for my general judgment, and I submit my more matured reflections noted in two recent Minutes on Department of Public Works organisation. The more the executive is localised and made part and parcel of the district administration and placed in rapport with local officers and District Boards, the less will be the friction in times of trouble. The present organisation fails seriously in this respect; but Department Public Works Officers shun what they deem subordination to local authority and interests.

Where "Civil Agency" works mean working and tasking the declining and famine-enfeebled creatures, mainly women and children, who were relegated to Civil Agency works during the late famine, the fewer of them we have the better. They are neither

Sir W. Robinson—continued.

humane, cheap or effective in saving life. The work is not worth its cost in money and waste of human strength already on the wane.

The two last queries under this question must be answered:—the District Officers.

Mr. Price.

I would, when distress appeared to me temporary, go on with ordinary works for which allotments had been made in Local Fund or Provincial Budgets, and I would not disturb the usual mode of supervising and directing these. I would at the same time, if this had not been (as it ought to be) done before, decide, with the chief officer of the Public Works Department, what larger works should, as famine measures, be taken up, and I would make preparations for setting about these if matters became worse. In the earlier stage of distress I would take on all applicants of the cooly class, making the sole test a proper day's work for the ordinary wages, and relentlessly cutting off a portion of these for short work. When it became clear, from increasing prices and demand for employment, the lapse of the cultivating season without sufficient rain, and the failure of crops on the ground, that a famine was inevitable, I would begin special works, and at that period I would prefer massing the people on a few localities at a reasonable distance from their homes, placing them under efficient Public Works Department supervision and exacting a full task. If matters became still worse, I should open smaller works nearer the homes of the people, but employ upon them only those who were weakly, leaving the larger works still occupied by the strong.

I am decidedly in favor of leaving all relief-works, no matter of what kind, under the supervision of the Public Works Department. I have always been strongly opposed to placing anything but the most petty works, such as clearing silt out of drinking ponds and making small sanitary improvements around villages, under the superintendence of Civil Officers.

My reasons mainly are that the profession of an officer of the Public Works Department is the planning and superintendence of irrigational and other works; that the Civil Officers, as a rule, are totally ignorant of the way in which work should be done; that the officers of the Public Works Department are accustomed to measure up and account for work, which Civil Officers are not; and, lastly, that where a famine really occurs, a Civil Officer, even if he understood how to carry out any particular work, has so much of other matters to attend to, that he cannot give the necessary time to the supervision of work which, if it cannot be actually overlooked by a professional man, can be inspected and directed by him with more effect than by an amateur.

I know of no single argument in favor of placing relief-works under the direction of Civil Officers. I speak from a comparison of the results in the Cuddapah District, in a portion of which the late Mr. Schoury undertook the entire care of some relief-works and the supervision (charge remaining but nominally with the Civil Officers) of others. The outturn and the quality of the work thus performed contrasted in a most remarkable way with those of work in other parts of the district which, owing to no fault of mine, was overlooked solely by Civil Officers. I consider that the chief District Officer and the Public Works Department head of the district should, in consultation, settle all questions connected with undertaking special relief-works. It should be the duty of the former to decide in what particular locality relief of this kind should be given, and to arrange

Mr. Price—continued.

through his subordinates for the supply of materials for camps, provisions, carriage, &c.; and when the work to be executed has been settled upon, to send to it the necessary coolies with rolls; and it should be the duty of the latter to be prepared with a sufficient list of works, to be able to state for what number of men, women, and children each one will provide employment, and for what period it will do so; and, finally, after discussing and settling with the Collector which of these, as regards situation, nature of work, &c., is the most likely to afford efficient relief with the most chance of eventually the least loss to the State, to take it in hand, depending only upon the Civil Officers for his coolies and supplies. The responsibility that the needful steps as regards works are taken should, I think, be with the head of the district, the chief officer of the Public Works Department being responsible for the planning and execution of all works and the accounting for them.

Mr. A. McC. Webster.

It would not, in my opinion, be necessary for the district officer to take any special measures for the relief of persons accustomed to agricultural labor supposing he considered the distress to be only temporary. For weavers special relief is required, and this should be given *at once*, as they are, as a rule, in very poor circumstances. The relief should take the form of employing them in weaving.

There are always many works going on in the district either under the Local Fund Board or Municipalities, and applicants for works should, as far as possible, be taken on them. Almost all the Local Fund Board works (repairs of roads, &c.) are under the supervision of the Public Works Department and are scattered throughout the district. There are also irrigation works, tanks, channels, &c., the clearance of which would be an excellent work.

It would be absolutely necessary, as soon as it is decided to afford relief by the ordinary works, to reduce the current wages for labor to a rate that would establish a "wage test," otherwise the Local Funds might be swamped without any certainty that the people they were relieving were absolutely in need of relief, and this reduction should be effected at the earliest possible moment. It would not, in my opinion, be advisable to introduce a distance test though a labor test might be established by systematic tasking. The great point is to keep the people from, or I should rather say to give them the opportunity of not, becoming emaciated; and late experience has shown that the present (famine) rate of wages is sufficient. Of course, many idlers will not come on the works and these will probably become emaciated, but this we cannot guard against. If any distance test was established at this stage, it would, I am afraid, result in many deserving people staying away from the works, for the villagers have the greatest possible aversion to leaving their homes, and will in many cases rather die than do so. So that if a distance test were introduced we should fail in doing what we want, viz., keeping the people from emaciation.

As the road and irrigation works are scattered throughout the district, it would not, supposing the distress to be only temporary, be necessary to open any special works. A few months, however, and the experience of the demand for the relief afforded by the ordinary works, would probably decide whether the distress was likely to continue, and if there was a probability of its doing so, special works should at once be established, and the district officer should not wait for the completion of the ordinary works in progress; but special works should be started in addition to them. It would only be necessary at this stage (*i.e.*, at commencement of distress,

Mr. A. McC. Webster—continued.

and before the experience of the demand for relief afforded by the ordinary works shows that the distress is likely to be continued) to open special works if the ordinary grants for works in progress were likely to be exhausted; and even then, I think, it would be better to sanction additional grants for those works than to open new ones.

The special works should be distributed throughout the district, not so as to collect the applicants in comparatively large numbers at a few localities, but to give them employment in smaller bodies at many places and in the vicinity of their houses. The works should generally take the form of thoroughly repairing and improving the lines of communication, constructing wells at convenient distances along the roads, and clearing silt from tanks and channels, and improving the bunds. Such works would, so to say, be large works of permanent utility but divided into sections so as to give relief near the distressed villages.

Such works should be placed under the supervision of the Public Works Department. I consider works of this nature—large works divided into sections—far better as a means of affording relief, than a single large isolated work, for the latter would necessitate the people leaving their homes and perhaps the old or weaker members of their families, and experience has shown that the people will not do so, but will prefer to starve. The argument in favor of a few large isolated works is that the work is likely to be more permanently useful, the coolies are more under supervision and can be tasked more carefully, are paid more regularly, and there is less opportunity of fraud by short payment than would be the case in small works. Also a distance test would be established by which those not actually in need of relief would be kept away.

In alluding to a few large works, I have specially in mind the construction of tanks. There is not, as I have remarked above, the same objection to the construction of lines of communication, channels, &c., because these, though single works, are extended and when traversing a distressed district, afford at the different points relief to the people near their homes. My objection therefore to large works only applies to isolated works.

The argument against the system of large isolated works is that the people are compelled to leave their homes, families are separated, and those who must of necessity be left in charge of the house are permanently excluded from relief, whereas if the works are near the village it would not be necessary to leave any one in charge except perhaps the old and infirm who would be supported by the working members of the family, sharing their meals with them, and perhaps in some cases by money-dole. If no one was to receive relief until he had sold off every thing, seed-grain, ploughing cattle, furniture, &c., then there is not the same necessity for having works near at hand, but this cannot be the intention of Government. The intention is I take it to afford such relief to the people as will keep them in strength and help them to tide over an adverse season, and to take the earliest opportunity afforded by a seasonable fall of rain to cultivate their lands. If every thing is sold off the people and the country would be permanently pauperised. Experience has shown that whenever possible the poorer classes of ryots and for the matter of that the well-to-do also in some cases have kept what ploughing cattle they could and a few sheep or goats and have gone to works near their villages, so that when seasonable rain fell, they would be on the spot. The sheep and goats would be sold to purchase seed-grain and the lands would be ploughed. With works in sections this would be possible. With large isolated works, the people would be far removed from their villages, would not be able to keep any live stock

Mr. A. McC. Webster—continued.

through the period of distress, and would not be at hand to take advantage of a favorable season. On these considerations I am decidedly in favor of small scattered works or rather of works such as long lines of communication and channels which traverse distressed localities and will afford relief to the villagers living within eight miles of the line. Experience has shown that the villagers will go that distance and back daily for work, such is their dislike to sleeping out of their villages.

Note.—I am not sure whether the question refers to the advantages of one class of works over another, but I have given my opinion on the point in this place, and will give it again in my answer to the question in Chapter III with reference to the distance test. Regarding the advantages of placing relief-works at the earlier stage of distress under the supervision of the Public Works or Civil Department, I am of opinion that, as a rule, such works should be under the supervision of the officers of the Public Works Department, except those works that are situated within Municipal towns. All the ordinary Local Fund and Irrigation works are under the Public Works Department, and no change in their supervision should be made. The only works that might be placed under Civil supervision are petty works of village improvement, &c., but I am not in favor of such works being established; they will be numerous and scattered; they cost a great deal more than they are worth, and seldom are of permanent improvement: the superior Civil Officers have their time fully occupied and cannot give that personal supervision that is necessary. The consequence is that they are left to the Monegars (heads of villages), and he does just as much or as little as he pleases. Take for instance the deepening of village wells or the construction of new ones. The work goes on well enough as long as the surface soil lasts, but then the trouble begins and the work is generally brought to a standstill by the rock being reached. The ordinary villagers are unable to excavate rock, this work being peculiar to the Wudder caste, and the consequence is that no water is reached and the well is useless. Then as regards tasking, this can only be effectually carried out by trained officers.

As the works that in my opinion should be established are such as would in ordinary years be under the supervision of the Public Works Department, I consider that that department should have the management of all relief-works started, but there should be on such works a distinction drawn between the full task to be exacted from strong people, and a lesser task from those physically unfit for an ordinary amount of work. If works are started soon enough, and near enough to the distressed villages, the number of the latter class of persons will probably not be great.

When the Collector considers that temporary distress has developed itself, he should inform the District Engineer, and that officer should at once reduce the labor rates on the works in progress and direct his officers to admit to the works as many applicants as come. The District Engineer and Collector should then arrange for the opening of special works should such be eventually found necessary; and the scheme should be submitted at as early a date as possible through the usual channels for the sanction of Government. I do not think anything more than this is required.

The selection of works should not rest with the Public Works Officers, but with the Collector of the District in communication with the District Engineer, their proposals being, as above stated, submitted for the sanction of Government. The selection should be guided, first, by the localities in need of relief; second, by the anticipated duration of the distress, and as accurate an estimate as can be formed

Mr. A. McC. Webster—continued.

of the numbers likely to require relief; third, by the comparative permanent benefit of the works; fourth, by their propinquity to the distressed villages; and fifth, by their capability of efficient supervision.

Mr. Longley.

Measures to employ people on budgeted (whether Municipal, Public Works Department, or Local Fund Board) ordinary work should be adopted. No steps need be taken for any charitable relief at this stage to persons physically unfit for work, as the springs of private charity would not have dried up.

Yes; on the ordinary works in progress, whether under Public Works Department, Local Fund, or Municipal Agency.

From my experience of the past famine, I think that the distance test is not productive of good results so far as the interests of people are concerned, for those in real need of State relief, having to quit their homes for distant work without being able to look after their homes, their dwellings, implements of husbandry, in short everything belonging to them goes to rack and ruin, so that on their final return they find it very difficult to settle themselves. It is for these considerations that many really in need were most reluctant to quit their homes even at the sacrifice of their lives, so intense is the attachment to the "lares and penates" in the native mind. I would suggest that the works be divided into two classes—one for able-bodied conditioned to work at the normal rates and to be paid for according to the quantity of work turned out, and the other for the weakly under the task system fixed with reference to their capabilities. This method, if adopted, will form sufficient check and prevent those able-bodied not really in want from resorting to works. As regards the *very weakly*, there may be no necessity for any test, as their very appearance would indicate their want, and these should be gratuitously relieved until strong enough to work.

In the absence of sufficient number of ordinary works, special works will have to be opened and selected, if possible, in distressed region, giving the coolies the option of returning to their homes at night. If such works cannot be found in the distressed region, of course there is no alternative left but to start work at distant places. No doubt the selection of large works in a few localities, so as to admit large numbers, would, in a financial point of view, lessen the cost of supervision, but this does not counterbalance the difficulties the people would have to undergo as explained above (*vide supra*).

All labor works (except improvement of drinking water supply) should be placed under the Public Works Department.

Vide answer to Question II, Chapter III, Section I. Except on professional questions, the Public Works Department Officers should be subordinated to the Collector.

They should be *solely* guided by the instructions of the Collector of the District, who is the officer responsible to Government for the welfare of the people and the prosperity of his district.

On the Collector of the District, who is immediately responsible for the "bene-esse" of the people and the province committed to his charge.

Mr. Crole.

If the distress is likely to be temporary, applicants for relief should be first employed on ordinary works in progress under the Public Works Department.

No tests required at this stage. If the numbers become large, special works should be opened, applicants for relief being enrolled by Civil Officers, and invariably being employed at a distance from

Mr. Crole—continued.

their homes. Works should be under the Public Works Department only. The reasons for this are palpable. Payments should remain in the hands of the Civil Authorities on the certificates of Public Works Department Officers. The responsibility for seeing that all branches of the public service do their duty should rest with the Collector of the District,—a rule even now laid down by the Madras Government, and which has worked well when applied.

Mr. J. G. Horsfall.

No special relief works need be opened. Ample employment could be found in ordinary works being carried on under the Public Works Department, Local Fund Boards, Municipalities, and Civil Officers. So far as possible the allotments of the year should be utilised and people readily admitted to the works upon piece or task-work. It would be sufficient in such a case if the superintending agency were strengthened, and regularity of payments ensured.

It is only when these works do not suffice to meet the crowds of applicants for works that special works should be opened, and these should at first be so arranged as to give employment to small bodies in the vicinity of their homes to which they would be able to revert at once upon the advent of a favorable monsoon. Abundant work of this kind can always be found in repairing or making village roads, repairing irrigation tanks, excavating or repairing drinking-water tanks and wells, reclamation of land covered with prickly-pear, and the like. Of these only petty works requiring no engineering skill should be carried out under direct civil control, aided and supervised by the Public Works Department. The officers of the Department of Public Works are by education and training better qualified to superintend all works. They can estimate and see that the work done is adequate to the remuneration allowed. They have the advantage of being educated to carry out such works. It is only with regard to petty works such as clearing prickly-pear, repairing village roads and village drinking-water tanks and wells, and such like that professional supervision is unnecessary and would prove too expensive. Such works as these can easily be carried out by the village officers, supervised by a Revenue Inspector or clerk from the Taluk Cutcherry and checked by the Tahsildar and Divisional Officer and occasionally by the District Officer himself.

The selection of all works should rest with the Collector and District Engineer combined except in the case of minor village works to be carried out under the superintendence of Civil Officers. These should be left solely to the discretion of the Collector. When a sufficient number of works has been provided, the applicants for works should be passed by Civil Officers, leaving the execution of the works and their regulation as to task or piece-work entirely to the Public Works Department.

Works of public utility should invariably be selected, such as the improvement of water-supply for irrigation or supply of drinking water; secondly, the improvement of communications such as roads, railways, and canals. These works should be selected as far as possible near the centres of distress.

The responsibility of seeing that all needful steps are taken by all branches of the service should rest primarily upon the Collector.

Mr. Sewell.

If the distress is expected to be merely temporary, applicants for relief should be first employed on the ordinary works which should be pushed on and extended as far as possible, I mean, Local Fund roads, tank repairs, &c. Municipalities, as a rule, have so little

Mr. Sewell—continued.

money to spend on new works that they cannot do much in this way. Moreover, there are manifest objections to collecting large bodies of people in towns during seasons of distress. I do not think any test is required at this stage. Few will apply for work who do not really need it. If distress increases, it becomes necessary to open special works, and in the early stages I would rather give employment to small numbers near their homes, than collect them in masses. Such works, *e.g.*, tank repairs, formation of village roads, clearing village sites from prickly-pear, can, I think, be best looked after by Civil Officers. Public Works supervision is so costly that it is not worth while to expend it on small and scattered works. As famine extends, I would advocate large works placed under professional management, such works being of course selected by the Civil and Public Works Officers in concert. Irrigation works, which will be remunerative either directly or indirectly are the best to take up. In this district, as mentioned above, we are so well off for roads that I would not advocate anything extensive in that line. The Collector, of course, is responsible for the general state of the district, while the District Engineer has the actual control of such works. If these two officers do their works properly and put them together, I do not think any difficulty can arise in this matter.

Mr. Pennington.

Certainly, if the distress is likely to be only temporary, I think all applicants should be employed on works in progress, and I would certainly *at that stage* have no tests. Such works should go on, as usual, under the Public Works Department Agency, every effort being made to strengthen *that* department, especially as distress increases. I am entirely in favor of all relief-works being carried out by the Professional Department as more satisfactory in the end, and I see no difficulty either in the selection of works by the District Engineer *in consultation with the Collector*, on whom ultimately all responsibility must rest, for seeing that every thing possible is done.

Mr. Whiteside.

A district officer who has reason to believe that existing distress is merely temporary should arrange to employ his people as far as possible near their villages, so as to be able to get them back on to their fields as soon as rain facilitated the resumption of their ordinary avocations. Applicants for relief should be employed as far as possible on ordinary works in progress, or entered in the Budget under Local Fund Boards or Imperial (that is the regular Department Public Works) supervision. In Municipalities the ordinary works are so limited that they would not be able to employ people in such numbers as to have any practical effect in alleviating distress, and I should regard it as a great mistake to do anything that would induce the people in distress to quit their villages and resort for relief to large towns. I would fix the wages for people on such works at a trifle under what the people would ordinarily earn in their villages. This would prevent the idle from coming in needlessly large numbers, and further a fair day's work should be exacted from each person. At the commencement of distress we may expect the people not to come on to the works in a very reduced or emaciated state, and therefore they would at that time be able to turn out very nearly a full Department Public Works day's task. If the ordinary works prove insufficient, and further work is found necessary, I would then employ the poor in improvement of village-sites, camping-grounds, deepening of wells and ponds, clearance of petty irrigation channels, and removal of noxious vegetation—all of these valuable works in their way and in some of them sanitary

Mr. Whiteside—continued.

improvement is much needed. These would not be very costly and would still have the effect of keeping the people in distress near their villages in readiness to take advantage of any improvement in the season. Such works may advantageously be carried out under Civil Agency requiring, as they do, no scientific supervision. As the distress intensifies and becomes widespread with prospects of continuance, then special works should be opened and these should be executed under Department Public Works supervision, because (a) they will usually be large and important works requiring special professional skill to carry them on successfully to completion; (b) they will be resorted to by large bodies of people who will have to be properly supervised in order to avoid confusion and to secure a fair day's work in return for the wages paid; and (c) at the time when such large works have become necessary, distress in the villages will be severe and the resources of the Civil Agency will be taxed to the utmost in supervising gratuitous relief in camp and villages, and in conducting petty works as before to provide work for the weakly poor, who cannot go on to the large works where full tasks are exacted. When such large works have become necessary the time has passed for endeavouring to keep the people near their homes. Distress will have begun to pinch people who do not ordinarily go out to work, and unless care is taken they will, with their families, young and old, go out to the works near their houses and make a pretence of working, the State being put to the expense of needlessly supporting large numbers of people who are not such as should properly look to it for aid. The distance test may now with great propriety be enforced. I would, therefore, have special famine relief works selected, so that large bodies of people may be massed and worked together away from their villages. People in the upper classes of village communities will not leave their homes to go any distance for work. They have some property and they do not like to go far off lest it should be stolen in their absence; moreover the females of their families, who will go on to the works if they can return home at night, refuse to quit home to work and live at a distance amongst a great throng of strangers. It is the duty of Department Public Works Officers to endeavour to carry out all relief works harmoniously in concert with district officials, and I do not think that any special steps or arrangements are called for to ensure their ready communication. In this district nothing gives me greater satisfaction than to call to mind the cordial co-operation that the district officers received at the hands of the Department Public Works officials from the time (November 1877) that their assistance was called in to supervise relief works. I consider that there should be always a list of important works that would form good special relief works kept ready in hand to be taken up whenever necessity arises. In 1875, the late District Engineer, Major Prendergast, and I drew up in consultation a scheme of important works that we considered ought to be taken gradually in hand for the improvement of the district. These consisted of the formation of some new roads, the restoration of another that had fallen into disuse, and the metal-ling of certain important lines of communications which then were only gravelled. Estimates for some of these had been gradually prepared and thus when the famine became very severe, and large special works were needed, there was no difficulty in deciding on what should be first commenced in nearly every part of North Arcot. During the famine nearly all the works entered in that list were carried out. The Collector and the chief Department Public Works official of every district should be held jointly responsible for seeing that all needful steps are taken to carry out efficiently relief operations through their respective subordinates.

Mr. Grose.

The first measure should be to open Local, Municipal, and Provincial works to any amount of labor, paying enough to afford the laborer and, say, one child sufficient food. There should be no tests except the test that the ordinary task is to be performed, and the subsistence wage. Small works should be established in addition near places where there is distress, especially towns, and where there are no ordinary works, for the great danger at this stage is that the reluctance of the people to go far from their homes or engage in unusual work will induce them to starve till they cease to be able-bodied. It follows that large numbers should not be collected in one place. The works should be under the Department of Public Works as far as work goes, for they have an experience in organising gangs and exacting work which other officials have not got, and this is as true at the beginning as during the height of a famine. Payment, too, may be left in their hands at this stage. Want of supervision is always felt when emergencies of this kind occur, and there will be many of the works (which, in my opinion, must be numerous and scattered) for which Department of Public Works agency will not be available. These must perforce be entrusted to other agency. The questions as to how the Public Works Officers should communicate with the District Officers, choose works, &c., seem to me to be of importance only at a later stage.

Under the Madras organisation the responsibility that all needful steps are taken must necessarily rest with the Collector.

Mr. Lee-Warner.

There are some traditions in the system of the Public Works Department which require eradication. One is that coolies ought to be got to work for less wage in times of approaching distress than in ordinary times. The fallacy of this is obvious; as in times of high prices everywhere prevailing the wage buys less food. If the normal rates are raised, as they ought to be, a large class of persons will be enabled to continue supporting themselves and their families, who otherwise, it may be only a few week's later, will come upon the hands of Government as applicants for gratuitous relief in an exhausted state, and unfit to work. The time when distress begins to appear in the second year of a bad series of seasons is just when all the ordinary road repairs and other work in the district is or ought to be in full vigour. In April, May, and June of this year there was much distress among the poorer classes; and large amounts for the repair of the roads had been sanctioned by the Local Fund Board. Notwithstanding this no work was done, the excuse finally given by the Public Works Officers being the want of water. It is obvious that if the rates of wage had been fairly raised in proportion to the unusual high price of food, and if weekly or biweekly payments had been promised to the men, any amount of labor was available. The whole arguments for or against leaving the supervision of Civil Agency works under the Public Works Department turns on their system of payments, and their predilection for contract work. Contractors cannot afford to accept work from every one who applies for it. They keep under their control a set of laborers over whom they have an influence, and with whom they make private arrangements what they will receive. I have even heard of Taluk Overseers keeping such gangs under their private control. These men therefore have an interest in not taking on strangers to the work, who are likely to demand punctual payment of the full rates. Therefore I think that at the first stages of distress all ordinary works in progress under the Department of Public Works should be thrown open to all classes of people, which can

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Mr. Lee-Warner—continued.

only be done by stopping all contracts, and increasing the Public Works Department Staff of measurers and paymasters so that the coolies may get their wage regularly, and the District Engineer should become as it were the Famine Assistant of the District Officer.

Mr. Austin.

I would employ applicants for relief at first on the ordinary works in progress under the Department of Public Works and on Municipal works as far as practicable. So long as laborers could be profitably employed on such works, I would demand no tests. When such works showed signs of being exhausted, it would then be time enough to open special relief works and adopt the tests. Such works should, in my opinion, be as large as practicable and entirely under Department Public Works supervision; but no contract work should be allowed, except under special circumstances. So far as my own experience goes the work done under Civil Agency has been both poor and costly. The Civil Officers, such as Tahsildars and Revenue Inspectors, lack the professional knowledge requisite for the proper superintendence of such works. A sharp unscrupulous Overseer with a slight smattering of technical knowledge has an ordinary Revenue Officer almost at his mercy. I would prefer larger works to smaller ones chiefly for the reasons that it is almost impossible to properly supervise the operations going on at a number of small and scattered works. Small works moreover will generally be in the immediate vicinity of the laborers' homes, and thus the distance test is lost. Moreover, small works require the constant changing of coolies from one work to another, which is objectionable. I would leave it to the Collector and Divisional Officers to select the works in consultation with the District Engineer. If the responsibility that all needful steps are taken by all branches of the public service is to rest on one head, then the Collector of the District must be the one; but I should be inclined to divide the responsibility between the Collector, the Divisional Officers (in their respective divisions), and the District Engineer.

Mr. Knox.

But at the commencement of distress people would not in general be in a bad physical condition, it requires months of want and starvation to reduce them to any great extent; I would not therefore carry on the works on famine principles, but with one exception on mercantile principles. Government would become a larger employer of labor, but that labor should be employed in as economical a manner as possible, and on useful works; contractors might be employed if necessary, the piece-work system permitted as usual, and the ordinary market rate of wages given.

In making a selection among the useful works those should be chosen even though more costly which on account of the large amount of unskilled labor required would give work to larger numbers. This, so far as it involved a choosing of the most expensive of two equally useful works, would be a departure from mercantile principles, but under the circumstances it would, I think, be advisable as a larger number of scattered works would be more difficult to supervise than a few large ones. The Collector of the District should, in consultation with the District Engineer, decide as to the number or kind of works to be commenced with reference to their usefulness and the numbers of people they would be likely to employ. The responsibility of selecting works and finding sufficient works would rest with the Collector; the responsibility of proper execution with the Department of Public Works.

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Mr. Knox—continued.

Acting upon these principles the ordinary budgeted works would be carried on in the usual manner, no more labor being employed upon them than was required to execute them properly according to the budget; and these works being in general few in number, it would probably be always necessary to start special works.

It would much conduce to meeting distress rapidly, if for every district a list of works was prepared on regular sanctioned estimates which might be commenced as occasion required, and when the work was a road the land should be taken up at once and the line clearly marked out by boundary stones or mounds to prevent the encroachment of cultivation and also to prevent the delay that would occur if at the critical time the line had to be marked out with the help of a map.

As for the kind of works to be undertaken that would depend, in a great measure, on the wants of the district; sometimes roads would be most required, but very generally labor might be usefully employed in the execution or repair of irrigation works. But whatever the nature of the work, its execution should, I think, certainly be left to the Department of Public Works. If it is not to be carried out on famine principle, it is obvious that supervision by professional men would best ensure economy and good execution.

It is of great importance that, in these times of distress, there should be free communication between Collectors of adjacent districts in order to ascertain the state of the labor-market in each, or it might happen that, when in one place the demand for labor exceeded the supply in an adjacent place, Government might be going to great expense to supplement a slack demand. When it was found that there was a demand within a reasonable distance, the fact should be widely made known in the parts where the demand was slack, and would have to be taken into consideration in starting new works.

Mr. Martin.

He should get a work placed at his disposal in the centre of the distressed tract, and give notice that labor at a stated task, which should at first be the full amount required from ordinary laborers, will be available for those who require it at the district rates of wages. The only test, I think, that should be applied at this stage is the task test. If, therefore, no work was going on in the distressed locality, I would open one special work at first to see whether there was a demand for the labor. When it appeared certain that the people were coming freely to work, I would open two other works and begin to apply the distance test. I prefer to collect the applicants in large numbers in a few localities, because supervision and discipline is possible, while over many small scattered works both are impossible.

I should certainly prefer to place works at this stage under the Civil Department, because the Civil Officers will have had the idea of approaching distress and of what will be required to relieve it more distinctly before their minds for some time, and will, therefore, be more alive to the necessity for speedy action. There can also be no difficulty in getting Department of Public Works subordinates to work under Civil Officers, whereas some Civil subordinates being Magistrates and Revenue Officers are not so conveniently placed under orders. There is also the inconvenience of temporarily transferring the management of the preliminary relief measures to the Department of Public Works, and much correspondence must result. The strongest reason of all, I think, is that a Civil Officer in charge of works will more surely become acquainted with the spread or decline of distress, and will be better able to calculate the time at which

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Mr. Martin—continued.

either these measures for which Civil Officers are usually responsible should be taken, or relief measures become unnecessary. When distress is certain to increase to severity, then I think that the Department of Public Works should be called in and take the works from the Civil Officers. I would place them in communication with the district officers through a Commissioner to whom both they and the Civil Officers should be subordinate, and to whom reference may be made on points of dispute.

I would place the responsibility of seeing that all needful steps are taken for relief on such a Commissioner and not on any of the district officers. Such a Commissioner should be an officer of standing and experience in famine administration, and should personally visit the district to see whether the estimate of distress is accurate, and whether the works are being properly organised.

Mr. Soobien.

In opening special works I would advocate the employment of the applicants in smaller bodies at many places in the distressed region and in the vicinity of their homes—firstly, because supervision in this case can be more effective than where large numbers are congregated in a few localities; secondly, epidemics which generally break out when large numbers are collected in one place are comparatively rare with small bodies of men,—an advantage which is by no means slight; thirdly, no expenditure need be incurred on hutting the laborers or on making special conservancy or sanitary arrangements.

In my opinion, such works may be best placed under civil supervision. The question whether the Public Works Department or the Civil supervision is the best is a somewhat difficult and delicate one to decide; but, on the whole, for various reasons I am of opinion that the latter is the best suited for such works. In the first place, Civil Officers from the nature of their duties are daily brought in contact with people, and have tact in managing bodies of people which may be wanting in Department of Public Works Officers. Again, Civil Officers with whom the people have daily to deal with can exact discipline and obedience to their orders much more readily than Department of Public Works men. Further, the people whose grievances are ordinarily redressed by Civil Officers will more freely lay their grievances before Civil than before Department of Public Works Officers. And, lastly, though not least, as far as I am aware, the Department of Public Works supervision of works in this district has not found favor with the people, and is besides more costly and not necessarily required in ordinary earth-works, which, in my opinion, ought to form the main relief-works.

Except in matters in connection with the execution of the works which are of a professional and technical character the Department of Public Works Officers should be subordinate to Civil Officers.

The selection of works should be made in consultation with Civil Officers, for they are the best judges to decide where distress is and where works are wanted most. The duty of seeing that all needful steps are taken by all branches of the public service concerned should, in my opinion, rest with the highest Revenue Officer of the district, viz., the Collector.

Mr. Jones.

Where the distress is temporary and not indicative of approaching famine, I think that applicants should be first employed on the ordinary works in progress under supervision of the Public Works Department Officers, or Engineer Officers of Municipalities. A certificate from Civil Revenue Officers that the applicant is in distress should be the only qualification for admission. If the

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Mr. Jones—continued.

distress is so general as to throw too large a number of applicants for relief on the ordinary works, then special works should be opened, in my opinion. These special works I consider ought to be so arranged in the distressed region as to afford employment for people in the vicinity of their homes. Where possible I would have these works under the supervision of Public Works Officers aided by Civil Officers. For quality and quantity of work turned out in return for the expenditure of public money no doubt the professional officers of the Department of Public Works would be most useful, and therefore I would enlist their supervision; but they have not the means of knowing the real circumstances of the rural population as affected by the season; they have very little contact with the ryot in his inner life, and consequently cannot be expected to sympathise with him to the same extent as officers of the Civil (Revenue) Department, whose work brings them into intimate relations with the ryot in every condition of his inner life, and therefore are best qualified to know the objects entitled to relief, and to suggest measures for effectual relief being afforded to them. I would, therefore, secure the co-operation in each relief-work of the local Revenue Officers. Apart from considerations of distance, regarding which I have already spoken, I am of opinion that the works selected should be simple, such as to employ largely unskilled labor, and should be such as would be of some permanent advantage to the country and the neighbourhood, more especially, e.g., improvement of existing irrigation resources or creation of new ones, excavating ponds, or making bandy tracks to villages from main lines of road or other important villages. The Collector, it appears to me, is pointed out as the officer on whom should rest the responsibility in the district of seeing that all needful steps are taken, in matters of relief, by all branches of the public service concerned.

Mr. Seetharamiah.

When the distress is believed to be temporary, the district officers should give employment to all the distressed poor that apply for it. Of course, the applicants must be first employed, as far as practicable, on the ordinary works in progress. If the number of applicants becomes greater than the ordinary works can afford to give employment, special works will have to be opened in convenient places within easy access from their homes. The works should be so arranged as to give employment to laborers in smaller bodies at many places in the distressed region and in the vicinity of their homes; for this would be more economical and better secure the object of Government in protecting the helpless people and the public finance. The only tests under which applicants should be admitted are the wage and labor tests; the work to be performed being not less than ordinary field-labor, and the wages being always within the local rates for such labor. The works should, in my opinion, be placed under Civil supervision, and the reasons in favor of it are as follows:—

A Revenue Officer entrusted with famine works in a taluk under his charge—

- (1st) Knows the different localities of his taluk better than the officer of another Department;
- (2nd) Knows the ins and outs of the people;
- (3rd) Can easily distinguish the rich from the poor, or at least has got the better means of doing it;
- (4th) Is more intimate with the people and commands more influence;
- (5th) Has under his immediate control the numerous village officers who would be most useful for rendering all the required assistance in the matter.

Mr. Seetharamiah—continued.

- (6th) Has so many connections with the people that he must necessarily have more feelings for them; and,
 (7th) He, as the officer collecting land-revenue, must naturally have a greater interest in their welfare.

With these advantages, which Civil Officers have over the Department of Public Works the former, I think, can better conduct operations than the latter at the early stage of the distress. After a few months' trial, the distress is found likely to increase last long, large works of permanent utility requiring professional supervision and taking a longer time to complete, will have to be started under the Department of Public Works agency. It is a question in the question that the selection of works is to be made by the Department of Public Works. It would be the interest of the District Officer of the district to find out works, and the usefulness and utility of any work being matters within his knowledge, the should be selected by him; but the feasibility of the work from the engineering point of view, should be decided by the superior officers of the Department of Public Works, both officers placing themselves in mutual communication with each other. In the selection of works it should be borne in mind that they are such as would give employment to all the distressed population of the different sexes and ages and as would permanently improve the resources of the district; that is to say, the existing irrigation works should be improved, fresh anicuts and channels and tanks constructed where necessary and advantageous. Village roads which would facilitate agricultural traffic should be improved and fresh ones opened where necessary. Of course, the Collector of the district should be the officer responsible for seeing that all needful steps are taken by all branches of public service concerned.

Mr. Oldham.

The state of the Midnapore District (Bengal) in the spring of 1874 and the cold season of 1874-75 was a case in point. The district officer's object should be to afford occupation to the distressed population in the slack season of the year. It has been assumed that the infirm poor and the habitual mendicants fare better in distress than the ordinary self-supporting laborer who gets a bare subsistence, till he is specially relieved. The former classes, therefore, may be left to their ordinary sources of support. Applicants for relief should be employed on ordinary work in progress under the Public Works Department, Municipalities, or the Local Authorities. The test should be the exaction of the ordinary amount of wages which, in the works paid for in a wage specially proportioned to the small margin over a bare subsistence.

But if weavers have to be relieved in this way a special labor must be fixed. It should be low at first, and can be raised.

Meantime, it is assumed that a scheme of special work prepared, to be resorted to if need be, should be referred to no longer afford room.

If a particular distressed class be particularly in need of a good plan to have a work or a section of a work for them. In Midnapore, I had one small road made entirely by the Waddas. Adoni, the Wadda—or stone-mason—caste is numerous, and of it can ordinarily turn out from three to four times the amount of earth-work in a day which an ordinary field-laborer can do. A piece-work was first tried, the Waddas used to earn six annas, while the other coolies attained a bare two annas. If the

Mr. Oldham—continued.

As regards the centralisation of works and relief-laborers, as compared with scattered works which are near the houses of the applicants for relief, I understand that, as far as the question applies to me, financial considerations and considerations affecting the utility of the work are to be left out. The former plan is the severer test; it is also the one in which supervision is easiest. It cannot be resorted to without entailing suffering, and filling relief-camps and hospitals. On it the laborers have to be huddled. They become of a more permanent character. If they have come from a long distance they cling to the work till they know a sure or fairly sure prospect awaits them at their homes.

Of the latter plan we had experience in Chumparun in 1874. It is the more liberal and the more merciful. With it resorted to, relief-camps and hospitals were not required at all. In Chumparun I had none in my Famine Division. With fair supervision the tests of admission can be made quite sufficiently rigorous. A great advantage attending it is the way in which, with the tests properly exacted, the people melt away when there is the least prospect of field-labor near their houses. With it there is no wandering, no bands of famished people collected in the bazaars. It is much the more expensive, but with means sufficient and with useful work to be done, I should prefer it.

In Chumparun, in 1874, the people worked well throughout. The outturn of work under Civil supervision was as good or nearly as good as that under the Public Works Department. In Adoni the people worked badly throughout except on piece-work or on task-work when rendered easily manageable by plentiful and effective supervision.

Works should be placed, as far as possible, under the Public Works Department. The brief arguments in favor of this course are that the officers of the department all understand the work, for which many Civil Officers have not the taste and fewer still the knowledge. The officers of the Public Works Department are the most fearless of exposure to the sun, and the hardest workers at out-door employment of any body of men with whom I am acquainted in India. No arguments on the other side occur to me, except the consideration that there is not employment in ordinary times for the number of Public Works Department Officers who are required in a famine.

At the same time, their functions should be special, and apart from those of the Civil Officer; that is, they should have nothing to do with operations off or outside of their works. On large central works they are best under the sole control of their own department, special rules being framed for the rates, the reception of pauper laborers, the exaction of special tests from special classes (weavers) or from persons in low condition in inefficient gangs, and the provision in work-camps for children and sick laborers. For smaller works the Department of Public Works Officer is most useful when placed under the Civil Officer's orders.

In selecting works the Department of Public Works Officers should be guided only by the probable utility and practicability of the work, combined with its efficacy in affording employment to a number of laborers of all classes. The Civil Officer can best deal with considerations affecting its site, its position regarding markets, distressed tracts, and so on. In the district on the district officer should rest the responsibility for seeing that all needful steps are taken by all branches of the public service concerned.

Mr. Weekes.

He should organise subscriptions and a Committee of residents in the principal towns to administer relief in the few cases in which it may be necessary with or without Government help, which might, if given, be equal to the subscription. Applicants for work should be employed, as far as practicable, on the ordinary works in progress, which might perhaps be supplemented by additional budget grants or by postponement of building estimates and substitution of earth-work.

I would use all of the three tests of distance, wage and labor in time of scarcity only, but certainly the second and third, and observe the result of paying less than usual rates. Special works would be required, if the ordinary were insufficient or ill-placed. If special works are required, they should be where they can be of most use hereafter, unless irrigation works, such as tank-repairs, are required at once, in which case they would be of more use in the way of relief as being nearer the homes of the people. Special works would be the best in the scarcity preceding famine when it would be safe to apply the distance test which it is not, in my opinion, safe to apply in the height of famine. The hitch is, that it is so difficult to be sure famine or only scarcity is impending; but the local officers should know, and the state of the labor-market should tell them. It is a question of degree whether small can be supervised as well as large. Large works are generally more useful; but there are very many tanks which are utterly neglected. All works should be under Civil supervision, with Department of Public Works Officers superintending the professional part of the work. The District Engineer should be the Collector's Assistant in that department and be entirely under his orders, as his professional adviser and assistant.

During the whole of the famine I did not receive the slightest assistance from any Department of Public Works Officer, except one Serjeant B., Department of Public Works, and two overseers were placed under my orders: and from March to September I tried in vain to obtain estimates for repairs of the numerous ruined irrigation works in the division.

I should mention an overseer did mark out the lines of a camp from a plan I had, and I have reckoned up all the assistance given. Payment should always be made by Civil Officers of a rank not below a Covenanted Assistant. The Collector and his professional adviser and assistant in the Department of Public Works should select the works for relief; and the responsibility in the district for seeing that all needful steps are taken by all branches of the public service concerned should rest, of course, on the district officer. My arguments are deduced from experience. I do not believe in payments by overseers or maistries, and used the services of the highest Revenue Authorities for paying laborers. On several repeated occasions the Tahsildar of the taluk on arriving at the place for payment on the proper day found obstacles lay in his way from the absence of the Department of Public Works Overseers or the non-appearance of nominal rolls or other necessary papers. Again, well-to-do people were kept on the works and emaciated people refused work. This was reported to be by order of the District Engineer. The overseers should have been told to obey my orders implicitly. It is impossible to prevent friction with an independent Department of Public Works; and Government interests are much sacrificed by their independence, and the useful supervision of the Collector of the district lost. This is the case in ordinary times. In times of famine it becomes much worse. The main object of having the works is relief, and this can best be attended to by the Civil Officer. All purely professional

Mr. Weekes—continued.

matters, and these only would lie naturally out of the sphere of the Civil Officer; but he should be able to tell at once, without circumlocutionary correspondence, what work the laborers on such and such a work are doing.

It is necessary to know at once without circumlocution how many of the coolies sent with nominal rolls to works are actually taken on there. I discharged from a camp and sent to work on a Monday 196 persons, of whom on the Thursday I found only 132 working. Again, on a Wednesday 88 persons were discharged from camp and sent to work, of whom only 42 were entertained. The distance was only three miles. The relief officer should be able to tell without delay what work the coolies on such and such a work are doing and their number; whereas under the present system, after much circumlocution, he would be told it was no business of his. I had reason to inquire of the District Engineer what were the rates ordinarily in vogue in the district. It was necessary for me to know. An inquiry like this had to be conducted through the Collector who was in one part of the district, while the Engineer was in another. I was informed by the District Engineer that I must not correspond with him by memorandum, and afterward that I must correspond through the Collector. I sent a batch of coolies with nominal rolls to an overseer; whether the coolies were refused as the talyari reported or not I am not sure; but the overseer wrote to the Deputy Tahsildar that he had had no intimation from his superior officer of my appointment as Special Famine Officer (as I had signed myself); and requested that, in future, the Deputy Tahsildar would always himself send a yadast with any coolies sent by me! As to outturn of work, I had one road in Pulivendala Taluk that was made cheaper than the Department of Public Works estimate. Every thing depends on individual character, not on departments. The District Engineer, Bellary, on the 15th June 1878, writes, the coolies on the Civil Agency work are only doing 20 per cent. of the work according to estimate rates, and somewhat less on another road; and that if numbers should increase considerably, he might not be able to get even as good an outturn as one-fifth. This was in June 1878, when the pressure was nothing to the pressure of 1877. Of course, I do not mean I got as much as full rates on every work: far from it. And I would certainly have the best agency procurable, but all should be under the Civil Officer in every thing except purely professional matters. I asked for a man of the acquirements and stamp of a District Engineer for each of my three taluks, and if my request could have been granted, it would have been well. They should have been directly under my orders.

Mr. Cook.

If the district officer thought the distress to be only temporary, the best thing would be to open up petty relief-works near the most distressed places. Such works as metal collection and repair of village-tanks, &c., are, I think, the most suitable; because they will give employment to all, and, no matter whether they are suddenly stopped, no loss can accrue to Government, for, in the first instance, we have our metal collected, which is always useful for the Department of Public Works, and, in the second, the village-tank is rendered more or less useful as a storage of water in cases of temporary drought.

I do not think it advisable that the first applicants for relief should be employed under the Department of Public Works, because under these agencies hard task-work is generally exacted, the applicants are fresh from the fields and villages, are consequently unaccustomed

Mr. Cook—continued.

to, and unable to perform it, and confusion would arise. The urban applicants might be employed under the Municipality (see answer to Question 9).

The only tests I would advise would be wage and labor; that is, a fair day's work for a fixed wage to be determined on by the local authority.

At an early stage of distress, it would be better to give them employment in many places near the vicinity, say a distance of a few miles of their homes; because should the distress suddenly stop, they will be able to return to their houses and renew their occupations, whereas if the works are few and far between, it must necessitate an abandonment of their homes, which would either have gone to ruin or be occupied by some others. When they return, they would thus become beggars and a burden to themselves and their neighbours.

These special works at the beginning of distress had much better be under the care of the Civil Agency. If the selected work be one requiring professional skill, the Department of Public Works might be the Executive Agency under the general supervision of the Civil Authority.

My reason for preferring the Civil Agency is because they are better judges of the condition and wants of people; they have more means at their hands for regularly paying the coolies (there is too much machinery in the Department of Public Works for making regular payments); and they are looked upon by the people, not as task-masters, but as relievers of distress, &c.

The Department of Public Works are accustomed to hard task, and this, I think, inadvisable when distress is likely to be temporary, for it takes some time to inure a man who has been all his life accustomed to the plough to handle a pick-axe and mamooty. By forcing them at first to full task, as the Department of Public Works would do for their own credit, we weaken or drive away the people when distress is temporary and make them wanderers.

As I have said before, unless the work be one requiring real professional skill, it had better be under the Civil Agency. If, however, it does require engineering skill, then a Department of Public Works Officer might be selected to superintend the work under the orders of the Civil Authority, whose business would be to take and reject coolies, to pay them for work done with his own paymasters; in fact, be controlling officer.

I think to each taluk there should be a Civil Officer, with supreme authority in the taluk. A certain sum might be put at his disposal for expenditure in that taluk, which he should spend at his own discretion, subject to the general control of the Collector; for, there is no doubt an officer on the spot and always moving about among the villages is better acquainted with the state of things than one at headquarters, and would be a better judge as to the necessity or otherwise of distributing money in one place or another or of opening up works here or there, for temporary distress is very often confined perhaps to half of a taluk or even to a few villages, &c. The Collector, of course, should be responsible for his district; but I think each taluk should have its own Civil Officer, with full discretionary powers. Temporary distress would then be more effectually dealt with and with more economy.

If Department of Public Works Officers are to select works, they should endeavour to do so, *first*, by selecting the work as much as possible in a central place that is easily accessible to the distressed villages; *second*, the work should be one that could be done by

Mr. Cook—continued.

ordinary coolies, such as tank-work, railway embankment, metal collection, &c.; *third*, that the work, if suddenly stopped, could be resumed without any material loss; and, *fourth*, that the work be one of utility and likely to be of permanent use.

Mr. Scanlan.

In such case, it would be hardly necessary to open gratuitous relief in any form; but applicants, if not in great number, might be employed on existing road or other suitable earth-works under the Public Works Department or Municipalities, under the test of exacting full work for an ordinary day's wage, or less according to deficiency of work if works be at a suitable distance, resorting to the distance test in addition. Special works at this stage might be opened when numbers of applicants are great and obviously too much for the existing Public Works or Municipal establishments to look after, and the condition of the applicants indicate weakness and inability to work with the professional gangs; these might be advantageously employed near the villages, repairing or constructing village roads (the want of which is greatly felt), and might be under Civil supervision if sufficient professional officers were not available, the task being exacted according to their abilities. Such non-professionals, if they be other than agricultural laborers, would seriously hinder important works of the Public Works Department or Municipalities, whereas, if separated, work might be adapted to them better. As it would be out of the question for every village to have works, one work might be established for a group of five or six villages. Those drafted to Public Works Department, the officers of the latter might employ on earth-work of some description capable of being performed by all able-bodied persons—on the works already under execution. This suggestion is only, assuming there is temporary distress but no apprehension of approaching famine when separate relief-works might with more advantage be specially organised under the Public Works Department altogether with an additional staff for the large numbers that might be expected.

Major Ross.

There would be no necessity for the application of any test to a voluntary applicant for work; the great difficulty at first was to get them to work.

I think that the distressed people should be employed in small bodies near their homes, but this would, of course, cause extra work and more supervision on the part of the Public Works Department. All works should be under the supervision of the Public Works Department. District officers have not time to give any thing but the most cursory attention to a number of Civil Agency works in their range; the keeping of the rolls and the payment of the laborers must, therefore, be in the hands of the subordinate native officials, and there is no end to the peculation which ensues.

As a rule, I look upon the money spent on Civil Agency works during famine relief as utterly thrown away.

If no professional works of any great extent are deemed necessary in a district, the Collector is the best judge of what roads, tank-repairs, &c., are required, and the Public Works Department Officers should be guided in their selection of work by him. The responsible persons in a district are the Collector and the District Engineer.

Mr. Travers.

Should the district officer suppose the distress to be but temporary, he should consult the District Engineer and apply to Government for funds to open some work, carefully avoiding giving it the name of a

Mr. Travers—continued.

relief-work, and let the work be carried on as any other local work under Department of Public Works supervision.

If as the season advances the distress increases special work must be opened under Department of Public Works supervision as alluded to in Section I, Chapter II.

The responsibility should rest with the Collector of the district for seeing that all branches of the public service carry out the necessary steps to allay distress in times of famine.

Major E. W. Shaw.

As regards applicants for employment on the special works referred to in this question, I consider the collecting of a comparatively large number of people and giving them work in a few localities is the best arrangement, provision being made by small village works in the vicinity of their homes for those of the destitute poor unable to go to a distance from their villages or to do much work. For the larger works the supervision of the Public Works Department would probably be necessary, Civil supervision being sufficient for the village works referred to.

Major Baynes.

(a.) The locality of the ordinary works in progress should be widely made known; payments on them should be made at least three times a week so as to meet, as far as possible, the wants of the classes mentioned in paragraph II. A staff should be organised for the prosecution of special works, so as to afford employment immediately an abnormal pressure arose on ordinary works in progress; and, if local traders were keeping up fictitious prices by combination, I should import grain from places where it was more abundant and selling at a cheaper rate; and thus lower prices by selling to the coolies grain brought by myself; because to increase the rate of wage to meet unnecessarily high prices of food is simply to throw money into the hands of the traders at the public expense; and the water-supply should be most carefully watched and maintained by cleaning out old or sinking new wells on petty contracts.

Early applicants for employment to be provided for on ordinary works in progress and under what agency.

(b.) As long as the ordinary works in progress sufficed to meet the demand, I should leave them in *statu quo*.

(c.) I would apply no further test than the simple request for employment on task or piece-works; it may be assumed as a fact that the agricultural and urban population are only driven by necessity to abandon their usual avocations and their homes to seek employment on a Government work on which an outturn equivalent with the wage is demanded.

(d.) Immediately ordinary works in progress cannot meet the demand for employment, but all the working plans, specifications, and estimates connected with such works should be prepared and kept ready for this emergency, because, when the pressure of famine begins to act, the effect is awfully rapid; in a few days hundreds become thousands, and before labor can be supplied to those seeking it, they become physically incapable, and then the demoralisation of the laboring classes sets in with a force which cannot be subsequently stemmed; this could be prevented by having the plans and estimates of special works for every taluk prepared beforehand and kept in the Collector's Office to be taken up on an emergency, and, if the

Supposing distress to be temporary, what relief measures should be adopted.

Under what tests applicants to be admitted.

Under what circumstances are special works desirable.

Major Baynes—continued.

necessary augmentation of staff for supervision of them was made as soon as there was indication of an abnormal pressure on ordinary works, there would be no delay in opening them. The absence of this preparation was the chief cause of the disorganisation in my taluk.

(e.) I would divide the affected taluks into circles having a radius of ten miles, and in the centre of each I would have a special work of Class I, so as to avoid the collection of coolies in unwieldy masses; the results of so doing have been shown to be imperfect supervision, delay in measurements, and consequent irregularity in payment of wages; sickness resultant on insufficient or over-crowded accommodation and scanty supply of water; death caused by want of medical treatment; epidemic disease generated by imperfect sanitation; for, however good the sanitary scheme may be, the attempt to obtain a voluntary submission to its rules from a mass of undisciplined people whose habits are filthy will prove futile, and a compulsory observance of them will necessitate so large a cost on the sanitary staff that it would be very disproportionate from the result obtained and from the sum paid as wages to the coolies for whom it has been formed. Moreover, this question involves that of the distance test which is discussed in Chapter III.

(f.) At the same time, I would strongly oppose the opening of numerous petty works under Civil Agency—such as were styled “village-site improvements, eradication of prickly-pear;”—at all events, till all other special works were exhausted; because they can neither be efficiently supervised on account of their number, nor can they permanently supply the amount of relief required during a season of distress; moreover, they utterly unfit the ryot for employment on special works of a legitimate character, for, when he has been morally demoralised and physically weakened by being paid a bare subsistence for the eradication of prickly-pear at his doorway or for digging a hole in his village pond, it is impossible to get him away from his village to do fair work on increased pay.

I would divide special works into two classes. The first would include road construction and all irrigation works; in every circle I would have one work of this class which I would style Class I. The second would comprise repair of existing roads, collection and breakage of metal on them and on roads under Class I, which I should style Class II, and I would not require laborers to come to works of this class from a distance greater than three miles.

To Class I, I should attach—

Men and married women up to forty-five years.

Unmarried women from twenty to forty-five years.

Lads and girls from twelve to fifteen years.

Marriageable girls between fifteen and twenty and children over ten years would be attached to this class if accompanied by their parents or near relatives; and, if marriageable girls though unprotected, desired admission to it, I should not refuse them. I should not separate a husband from a sick wife or *vice versa*, nor a parent from a sick child; in such cases I should temporarily employ the able-bodied relative on Class II.

To Class II, I should relegate adults between forty-five and fifty-five years, nursing mothers, and women in advanced stages of pregnancy, marriageable girls between fifteen and twenty, and children between ten and twelve years if they had not an adult relative in Class I whom they desired to accompany.

Arrangement of special works how to be made.

Numerous petty works not advocated.

Major Baynes—continued.

The persons attached to these classes should be able to do seventy-five per cent. of the ordinary outturn of an able-bodied laborer of each class. I am strongly opposed to the employment of children under ten years of age, and would as strongly advocate the gratuitous supply of cooked food to all below ten years who are eligible for relief, either in their village kitchen or in the camp attached to the work on which their parents were employed; the former plan is the best for many reasons; the cost of so doing very slightly exceeds that of employing them, but the results of the two systems are very different. Children of this tender age, if worked all day for a continuance, become prematurely old and do not thrive on any amount of food; they want less work and more play; during the famine, children over *seven* years were *compelled* to earn their bread by *working* from 7 A.M. to 5 P.M.; very few children of this age could stand this exertion even for a few days, and I did not carry out this order in consequence of the injurious effect it would have had on the "rising generation."

(g.) Under Civil supervision, as far as classification of laborers, issue of pay, sanitary and medical arrangements, supply of food, and the general welfare of the laborers and their children are concerned. The interference of the Public Works Department should be confined to matters purely professional and to measurements of work done (see Paragraph XVII b, Chapter III, Section I).

(h.) In stating my reasons for placing the unprofessional branch of the administration of relief-works under the Civil Agency, I must premise that my remarks apply only to my own taluk, and are the result of my limited experience; and that I only desire to comment on a system as it presented itself to me, not on individual officers of the Public Works Department. It is true that this department did not take any active part in relief operations in my taluk till September 1877, but in March 1878 it was unable to make regular payments, and coolies were starving on some works because wages were in arrears as much as three weeks.

Generally speaking, I consider that the welfare of the relief coolies and their families was held a secondary object to the attainment of professional interests and the maintenance of departmental routine; nor, if this be the fact, is it one to create surprise, because the European Officers of the Public Works Department are never brought into *direct* contact with the coolies employed on their works; they deal with contractors through their overseer and make only large payments on carefully-checked completion certificates; they are not as a body conversant with the language, feelings or capabilities of the coolies, and the professional habits and training acquired by them under a systematic discipline cannot be broken through without a total disorganisation of the department; and my experience goes to show that the department is not *naturally* constituted to act as a relief agency, and that it is not sufficiently *elastic* to become so with sufficient rapidity, or that its officers, high and low alike, never realised the fact that the *primary* object of a relief-work is to *save life*, and not to sacrifice it to the maintenance of departmental rules and systems of accounts.

(i.) I would leave the selection and time of commencement of special works, previously sanctioned for an emergency, to be determined by the Collector of the district, who should intimate his wishes on these points to the District Engineer in sufficient anticipation of their being actually required, to allow of that officer making his

Major Baynes—continued.

departmental arrangements for supervision of professional details and for securing regular measurement of the tasks performed by the gangs.

(k.) By the District Engineer subject to the condition of distance mentioned in Sections e, f, of this paragraph, and on a request from the Collector, he should be empowered to extend those or open others in anticipation of sanction, supposing the necessity arose for providing more labor than was originally estimated as requisite.

(l.) On the Collector and the District Engineer; the former would be responsible for all relief details, the latter simply for the correct prosecution of the work and submission of measurements. Payment of wages on pay sheets passed by the Public Works Department should be made by the Civil agency.

Mr. Baudry.

The wages on these works should be lower than in ordinary times, and all those willing to work under this reduced scale should be deemed a sufficient test.

If the markets are well supplied and distress exists, it is a sign of want of money; and it is perceived that no pawning and disposing of property goes on, it is a sign of scarcity of food-grains or real famine.

Mr. Nordmann.

If there is reason to believe that the distress is to be only temporary, and not indicative of approaching famine, it will be sufficient to employ all applicants for labor, as far as practicable, on the ordinary works in progress, and mainly under agents of the Public Works Department. The chief test required for the admission of applicants under these circumstances is the fact of their application, which shows their willingness to work and their need of earning a livelihood: next comes the *task*, which should be rigidly enforced in the case of all able-bodied people.

Special works need not be opened till numbers on ordinary works become inconveniently large. Such special works may be best arranged so that, as far as practicable, each work forms the central and gathering point for the labor of a region, with a radius of 10 to 15 miles, or an ordinary day's march. Thus one special work would afford relief to a tract of country measuring 400 to 800 square miles. This arrangement specially applies to works confined to one spot, like tanks for instance.

In the case of channels and roads the labor can be obtained from both sides, likewise to a distance of a day's march. Therefore, a channel or road, 50 miles in length, should yield employment to the population of a strip of country, say 50×25 or 1,250 square miles.

The Government cannot undertake to provide work for people in the vicinity of their homes, because the people's homes are scattered all over the country, and work to be useful is mostly required in certain definite localities. The work cannot, as a rule, be taken to the people, but the people must come to the work; and their doing so is one of the tests of their fitness for admission to relief-works. To employ small bodies of people at many places requires a staff of supervising and paying agency which is not generally available. Labor must then be concentrated at a few localities.

Mr. Nordmann—continued.

All works of consequence should be placed under the Public Works Department. Civil officers can supervise such minor works, requiring no professional knowledge, as may be necessary in connection with the relief-camps, village-relief, municipal arrangements, &c.

The obvious reason for placing Public Works officers in charge of professional works is that they are *prima facie* the only suitable persons to satisfactorily supervise work belonging to their special *métier*. In like manner, as a judge is put in charge of a court of justice, and a military man in charge of soldiers, a blacksmith in charge of a forge, &c., so an Engineer ought naturally to be placed in charge of Engineering works, where a civilian would be palpably out of his place, and would still require an Engineer at his elbow to coach him.

Ne sutor ultra crepidam.

In all matters where an understanding has to be arrived at between Public Works officers and Civil authorities, communication between the two sets of officers should be direct, by personal intercourse or correspondence, or both, according as circumstances may dictate.

As regards the selection of works for relief, the Engineer should be guided, amongst others, by this consideration, that one of the chief objects is to provide ample work for unskilled hands at a definite spot, or within a certain moderate radius, or along a certain manageable length. Thus, tanks or reservoirs, great embankments, or large excavations, channels or roads, are the most appropriate works on which to concentrate labor.

The kinds of work most suitable for unskilled labor are excavating, carrying and spreading earth and gravel; collecting, breaking, spreading and rolling metal, &c.

I think, the responsibility for seeing that all needful steps are taken by all branches of the public service concerned should rest on the local (district) heads of departments themselves, each of whom should be held responsible for his own branch of the service; as no one officer of any department can be fairly held answerable for other departments which are not under his control. The district heads of departments are under the orders of corresponding heads in the Government Secretariat, who again are under the immediate orders of the Famine Dictator, for the time being, *i.e.*, the head of the Provincial Government or his Famine Deputy;—supposing the ordinary machinery of Government to have been temporarily superseded, in view to the more prompt disposal of all matters relating to famine.

Captain Morris.

On the approach of famine, distress will be certain to make itself felt in certain portions of a district, sooner than in others. In almost every district there are one or two taluks in which the rain-fall is more scanty than in others, and which perhaps are insufficiently protected by works of irrigation. In these, as soon as distress shows itself, a few works might be opened, under the Public Works Department, sufficient to give employment to all seeking relief, for a short period, until it could be certainly ascertained whether the distress were only temporary, or whether a real famine were approaching. If possible, applicants for relief should be employed on ordinary works in progress; but if such do not exist in the locality selected for the commencement of relief operations, a few special works might be

Captain Morris—continued.

opened. The repair of tanks would be the most suitable kind of work for the employment of famine labor,—at this stage at all events; and as these exist almost every where, in every stage of disrepair, there would be no difficulty in selecting a few, of moderate size, sufficient to provide work for all those seeking relief. In order to avoid the cost of hutting, the selected works should be within easy reach of the principal villages, so that the laborers might walk to and from their work daily.

As stated above, I consider that these works should be under the supervision of the Public Works Department; their professional knowledge will be necessary, even in such a simple work as the repair of a tank, to ensure the best results from the labor expended on the work. On the Civil Department will devolve the task of looking after those who are incapable of work. The proportion of these is sure to increase at the later stages of distress, and the civil officers will have as much on their hands as they can manage in looking after them. As the severity of the distress increases, larger relief-works will have to be opened; these must necessarily be under professional supervision, and it is most desirable that the same system should be pursued throughout, from the very commencement of distress. A transfer of the supervision from one department to another involves the loss of all the experience gained in the management of large numbers of famine laborers, during the earlier stages of the famine; and such experience could not fail to be of much value. There is another point worth consideration—the transfer of supervision, if made at all, would be at a time when the numbers on the works had assumed considerable proportion; the establishment employed by the Civil Officers would probably be drawn from their own department, and there would certainly be difficulties in the way of transferring them bodily to another department; even were such a transfer possible, it is certain that the same amount of zeal would not be shown by them, as when working under the eye of their own immediate superiors. The Public Works officers would, therefore, have to improvise all at once a considerable establishment of subordinates, and this would be most difficult to do. The ordinary works of the year would be in full swing, and very few of the permanent establishment could be spared for the supervision of famine labor. Were all works under the Public Works Department from the very outset, the establishment could be expanded gradually; and the duties of both Revenue and Public Works Departments would be clear and distinct from the first. As regards the tests under which applicants should be admitted to the works, I consider that all who are willing to work at the rates laid down should be admitted; there is no other test I know of that can be entirely depended on. The rates must be carefully adjusted from time to time, so as not to be attractive; but I shall have more to say on this subject further on.

On the Collector, as the head of the civil administration of the district, should devolve the responsibility of seeing that all necessary steps are taken by all branches of the service.

Lieut.-Colonel Kennedy.

I would say that until actual failure of food takes place no measures of relief in Malabar would be of the slightest use; and when it does, there is always so much work in connection with the numerous roads throughout the district that not the slightest difficulty would be experienced in, at any time, profitably employing any amount of labor in almost any part of the district, and consequently that no measures in anticipation are required. I most decidedly consider that the ordinary works in progress are the best for applicants to be

Lieut.-Colonel Kennedy—continued.

put to, and quite as decidedly that such employment should be under the officers of the Public Works Department; for the reasons that the machinery of the latter is ready to hand and, if necessary, can be easily supplemented in the subordinate ranks; that the experience of the members of that department gives them an advantage over improvised supervision; and because I believe that the people themselves would more freely resort to works under the Public Works Department than to those under the supervision of the Revenue officials; for there is no doubt that occasionally a certain amount of pressure is in ordinary times exercised by the latter when labor for work is required, and also a certain amount of arbitrariness in remunerating the laborer so as to show cheap work; of course, I allude to subordinates, not to the higher ranks. When famine is apprehended, or rather appears certain, I consider that full discretion within certain limits cannot be too soon given to the Public Works Officers to afford opportunities for work to all applicants and that at ordinary rates and free of all test; for I think it very possible that by so doing large numbers would, at an early stage, avail themselves of such opportunities and would remain in a condition to do a fair day's work for their pay; whereas any attempt to restrict remuneration to starvation rates would deter the comparatively able-bodied from resorting to work for which they would consider they were not fairly paid, and with the result that later on these same people, broken down by want and consequent sickness, would be forced to take what they could get and give very little return for even such scanty wages. In Malabar I do not see any case in which special work would be necessary, and for my part I would much prefer to see the Public Works Officers left entirely to themselves, and would leave matters to run in the ordinary grooves as much as possible; the people would soon find out there was work for all comers, and no need would exist for any communication with District Officers to bring them to it, leaving it, of course, always open to the District Officers to intimate to those of the Public Works Department in the event of the existence of distress requiring work in particular localities.

Captain Awdry.

The Collector should, in consultation with the heads of other departments in the district, determine whether it is desirable to take exceptional measures.

Applicants for relief should at first be employed under the Public Works Department and the Municipal Overseers in ordinary works in progress, the rates on which should be slightly lowered so as not to be quite so attractive as usual, but at the same time so as to afford sufficient wages per diem for subsistence of the laborers, the regularity of whose payments should be especially carefully attended to. The special works to be opened will not be separate from the ordinary works, but will rather consist of concentration of the ordinary works as to situation while the numbers employed are increased, the object of the concentration being to obtain efficient supervision from the unincreased establishments of the district. In the early stages of a famine it is undesirable to have any laxity either in observation of the state of the coolies, or in the work they turn out, or the regularity of their payments; it is, therefore, undesirable at an early stage to have works scattered about at each village. Work for a large gang of work-people should be situated in each taluk, so that neither small puttadars nor agricultural laborers should be far from their homes, so that they may be able easily to return in case a change of the season for the better recalls them to their ordinary field cultivation. The District Engineer and his subordinates in the Public Works

Captain Awdry—continued.

Department will as usual—at any rate I am glad to say in this district—work in co-operation with the Collector and his Division Officers, the schemes of works and means of carrying them out being arranged by the Collector and District Engineer conjointly, and on the Collector and heads of departments in the district if called on by him should rest the responsibility of seeing that all needful steps in regard to watching and relieving distress are carried out.

Lieut.-Col. Hasted.

To meet temporary distress, it should be sufficient that employment on earth-work by piece-work should be available for all comers at ordinary rates, payments for work done being made at least once a-week, at such a distance from the distressed villages that those working can send part of the earnings to their houses. I think that people would come from the dry taluks to the Delta for work, thus perhaps forty miles. In the first stages of distress, none but ordinary works are required, and these should be under Department Public Works supervision. My experience is decidedly against opening special works in the vicinity of distressed villages, but when prices are excessively high, it is necessary that the officer in charge of the work should make special arrangements to ensure prompt payments. When the Collector and District Engineer are, as is usually the case, working in accord, there will be no difficulty in opening or extending works for the purpose. The chief responsibility would rest on the Collector, the selection of works on the Department Public Works Officer, acting under the orders of the Chief Engineer.

Major Clarke.

With reference to the subject-matter of paragraph No. 6, I would strongly urge that all applicants for "relief" employment should be put under the charge of the Local Civil Officers as a preliminary step, who will generally find it possible to find work (light work) for the starved laborer in or around a relief camp. If there the condition of the people grows worse, and the few works opened out are not found sufficient to give employment to the increasing starving population, the *able-bodied* of the paupers should be transferred to the Public Works Department, and the Senior Engineer Officer should be instructed to start some *special* works in the vicinity of the distressed villages or towns if found possible, or at any rate as near as practicable, and to employ the relief body of coolies on such works.

Modus Operandi.—Moreover it is absolutely essential that the *modus operandi* should be entirely left to the judgment of the District or Senior Engineer Officer, and that no foreign or crude ideas of others be forced on him, for it is, and must be, the experience of every Engineer Officer that the less trammelled they are by other people's opinions, the better they can discharge their responsible duties and the greater interest they do, *ipso facto*, take in working out their own conceived ideas, based most probably on intimate acquaintance with the natives of his district and on the professional experience formed or gained after many years' study of the character, &c., of both the people and the several localities.

The Engineer Officer can always submit his views to the Senior Civil Officer, who should alone judge them from the one stand-point of view, viz., that of the utility of the works proposed, which is the only question that he, as the Revenue Officer, should take cognisance of, leaving their execution to the professional officer. It would be as reasonable to suppose or to assume that a hatter could turn out a well-fitting coat as that a Civil Officer should have any knowledge of "how to make a road, or to construct a tank, or to open out an

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irrigation channel." Every confidence should be put in the capabilities and judgment of the Engineer Officer if he is worthy of his post of honor and responsibility.

Mr. Maxwell.

It is impossible to employ famine people along with the ordinary able-bodied labor. The Government issued orders to take on all applicants for labor in the Kurnool District on the road repairs (ordinary), giving preference to those sent by Civil Officers with nominal rolls. The able-bodied came on so quickly when they heard they were to get paid daily labor, not contract work, that the works were crowded by them to the total exclusion of the weak people who hesitated to come forward. In fact the whole budget allotment was spent before the weak people obtained any work. The result would have been much better if certain definite suitable works had been set apart for famine labor, and only those sent with nominal rolls taken on. No check on admission could be made unless nominal rolls were required from all, so the whole of the people had gradually to be turned away and only those with proper nominal rolls taken on; but by this time most of the money was spent and fresh famine allotments had to be granted.

I confess that I am unable to employ ordinary and famine labor at same time and place, one being a commercial and the other an essentially non-commercial affair; in the first case the strongest and in the second case the weakest being given a preference.

Mr. Paynter.

I think it would be most advantageous to the State, and would afford sufficient relief, to employ applicants at first on the ordinary works in progress under the Department Public Works, on the petty contract or piece-work system. Under this system the able-bodied would earn sufficient to support their families, doing away with the necessity of the weakly members of each family applying for relief at that time, or perhaps at all. The ordinary grants of funds of course would have to be increased and also the establishment, especially in the Upper Subordinate Branch. No test would be necessary at the beginning except the labor test, or payment according to the work done. It would be desirable to open special works when indications appear that the applicants for employment will become too numerous to be employed on ordinary works. These special works should, I consider, be so arranged as to collect the applicants in large numbers at a few localities, because the cost of supervision would be less, and the distance test, which would be then needed, would come into operation. I consider such works should be placed under Public Works Officers as they have generally more experience than Civil Officers in organising large bodies of people, and, without being any harder on the work-people than the Civil Officer, could get more profitable work out of them by directing their efforts into proper directions.

Mr. Cotton.

From the experience I have had, I believe that the Civil District Officer should, supposing he believes the distress to be temporary, employ applicants on the ordinary works in progress whether under Provincial Officers, Public Works Officers, or under Municipalities, until it is found advisable to open special works to meet the distress. These should be entirely under the supervision of the Public Works Department; first, because that department is in a position to bring forward useful schemes that have been previously under consideration as likely to benefit the country; and, secondly, because they can

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place trained supervision on the works. The Civil Officers may start a work which the Natives represent will turn out well and useful and which without data or investigation he too believes is likely to, but which when half completed is found not to effect the desired end and all from the absence of engineering advice. Also the supervision must be untrained which is objectionable.

The Superintending or District Engineer should, I think, in consultation with the District Officer fix upon the most desirable works to be undertaken in the district, such as new roads and repairs to roads, repairs to tanks, and remodelling of existing channels or cutting new channels; especially bringing forward such schemes as have already been considered and approved, and these two officers should be responsible that sufficient work is found, and apply to Government for sanction to a larger scheme should it be found necessary.

In my reply to the Question in Chapter III, I have given what I think the best tests for admittance of applicants.

Major Mead.

I consider that all public works should be under the Public Works Department, which in times of distress or approaching famine must be increased, and the strict rules of the department relaxed.

All the ordinary works (communications, irrigation, &c.), of the district should be repaired and placed in good order; this as a rule would provide ample work. The works should be done as much as possible in the ordinary manner on contract, &c., the rates being increased as the price of grain increases.

Public Works of all kinds should be put in hand, skilled artisans require employment as much as others, and therefore work should not be rejected, because masonry, stone-work, &c., requires skilled labor. The object is to employ profitably all classes, and by doing this on increased rates proportional to the price of grain, the whole country round will benefit, and people who require work will be able to obtain it without being pauperised.

I consider it useless for works to be started under Civil supervision, that is, under the Revenue Department; in times of distress or famine their duties are greatly increased, it is advisable therefore not to add to them. For more than twenty years the ordinary *marahmut* has not been executed by them; the traditions even of executing public works are lost to them. The Public Works Officers should remain under their own head, who will of course be in communication with the principal Civil Officer in the district, and they together will select the works to be put in hand.

Each head of each department is responsible that the officers under him do their duty.

Abdul Khareem Khan.

If the district officer believes the distress to be temporary, ordinary works in progress should first be adopted as the means of affording relief to the applicants for the State aid, such works should better be placed under the agents of Department of Public Works. The applicants should be admitted under the tests, viz., distance and task. When the distress is increasing and large number of paupers are admitted on works it would be desirable to open special works; these should be so arranged so as to collect the applicants of one district in comparatively large number at a few localities within the same district. Such works should best be placed under the Public Works Department, for the officers trained in that department possess the knowledge and experience necessary for keeping

Abdul Khareem Khan—continued.

order among crowds of relief laborers, for exacting from them adequate tasks, and for turning their work to the best advantage. District officers do not ordinarily possess the above qualifications in the same degree, and are commonly occupied with other duties. The usual course of communication between the officers of the two departments will be considered at such a time rather circuitous. It would save much time if Department Public Works Officers in independent charge of the works are placed in direct communication with the Civil Officers of their respective divisions. In selecting works for relief, Public Works Officers should bear in mind that the beneficial effect of the work as a relief measure is the principal object; therefore work, a greater portion of which is calculated to give employment to the unskilled laborer, should be selected. Large irrigation works, new or repair, and the remetalling of roads if judiciously selected will answer the purposes. District Collector should be held responsible for seeing that all needful has been done by all branches of the public service in his district.

Lieut. Henderson.

Applicants should first be employed on ordinary works in progress if the works are suitable; an immediate increase of supervising and disbursing staff should be made. Applicants for work at daily wages can be divided into classes with rates of pay according to their fitness for the work. Task work at rates based on the prices of food-grains is the best test of real distress. Special works should be opened when the number of applicants exceeds the powers of the local supervising staff. Special works should be large and simple. Applicants should not be provided with work near their own homes.

All works should be entirely in the hands of the Public Works Department; with Civil supervision the work turned out is generally exceedingly bad, often useless, and always excessively costly.

Mooneappa Pillay.

(a.) When the district officer believes that the distress is temporary or not indicative of approaching famine, then he ought to open certain public works.

(b.) The applicants for relief should be employed by the Department of Public Works.

(c.) The applicant should bring certificates from the Revenue authorities.

(d.) When there is no work in the hands of the Department of Public Works which requires other than skilled labor, then special works should be opened.

(e.) The special works should be so arranged as to collect large numbers at a few localities.

(f.) Such special works should be entrusted to Civil Agency, superintended by the Department of Public Works. I advocate this cause as the best guarantee to put down corruption in both.

(g.) Frequent meetings should be held by the Department of Public Works heads and the Collector, and orders issued jointly by them to the agents, &c., conducting the famine works.

Lieut. Hamilton.

Works in the district are generally carried out by contract and naturally contractors only take on their works those people who will do the maximum amount of labor continued with the minimum amount of pay. If distress commences, and there are reasons why relief should be afforded, a temporary commencement of works, supervised by departmental officers and subordinates and not given on contract, would lead to affording measures for relief. This would

Lieut. Hamilton—continued.

cause temporary increase of petty establishment, but by such a greater check on numbers and work done would be arrived at. These people should be given an ordinary task that could be done, as a rule, by an ordinary individual. The expenditure on the works would probably not be increased as by good supervision more labor would be obtained, and, as a rule, on contract works the supervision is very bad, and the works, as a rule, are so scattered that the estimate does not allow of such: hence, as above stated, extra petty staff would be required. The ordinary budget allotments could be maintained and, at the same time, measures of relief afforded. Relief-works are better under Department of Public Works than Civil Agency.

A Civil Officer is not accustomed to labor, and therefore not aware, as a general rule, of the value of labor. The amount of work done may be equal to that done by Professional Agency, but would not, or should not, be of such good quality. There are many questions in the simplest channels involving discharge, regulation of water, &c., not known but to Professional Officers, and placing such under Civil Agency leads to waste of money. In Chendragiri Taluk, where many channels have been cleared as famine works, I have not seen one where any thought has been bestowed on the section, but they are all simply sloped anyhow, and the work generally useless. The ordinary Tahsildar or Deputy Tahsildar is too much engaged with magisterial work to afford time to look after relief-works. The care of such then devolves itself on temporary maistries who care nothing about the style of work but think only of how much they can cheat the coolies out of. In many completion certificates submitted by the Tahsildars utter ignorance was displayed regarding value of work, and I can cite cases where the amount of work shown as done when valued at proper rates exceeds by more than double what work could be done for the same amount by the strictest economy and contracts. The Department of Public Works Officer, on the other hand, is only doing his ordinary work, and good work can always be produced, provided sufficient supervision is forthcoming. The system of sending people by nominal rolls to Department of Public Works Officers is a good one, if the Department of Public Works Officer can be easily got at. To ensure a taluk being properly worked, it would be necessary to divide such into divisions, placing each division under a competent overseer. He could receive all people in his division and place them on works within such, which works, of course, are settled before commencing relief operations. Applicants for work during the late famine have not been in many cases provided with work as quickly as they should, as there has always been a question where they shall go; and when that is settled, of sending them there and having proper people to receive them. This, of course, comes back to the want of staff. Military officers might be utilised a great deal in working with the Department of Public Works Officers, checking gangs, seeing people drafted to the different works, &c., Each division should have a centre station where applicants for work should be sent and be disposed of by the overseer in charge. The overseer would, of course, work under his superior officer, who in turn would be responsible that work was forthcoming. To ensure this, the District Engineer should have the power of sanctioning estimates up to Rupees 2,000, and as little delay as possible in obtaining sanction for larger works or projects.

Rev. Newport.

I think that applicants should be first employed on whatever ordinary cooly-work is going on at the time in the Municipality, Local Fund Board, or Public Works Department. When the

Rev. Newport—continued.

numbers on the ordinary works become too great, additional works of undoubted utility should be begun suited to the unskilled labor needing employment. Additional culverts to ordinary roads are largely needed. These could often be constructed by unskilled labor aided by a skilled bricklayer. The breaking up (by fire) of masses of rock, removal of the debris to convenient spots, reclamation of patches of land now rendered useless by these rocks remaining thereon, filling up old ravines, draining marshes and bogs, and numerous other unpretentious but useful works could be done by unskilled labor guided by an intelligent supervisor. I should imagine that such works might be carried out by a branch of the Public Works Department specially organised for that purpose.

As to the test, I would not insist on a ten-mile test *at the beginning of the famine*. It is expedient for many reasons to prevent the breaking up and dispersion of a family and its associations wherever prevention is practicable. A low rate of pay might be given to those who work near their own homes, but the love of home and home associations should not be rashly destroyed by insisting on a ten-mile test.

For the purpose of carrying out such simple works as those suggested above, it might be practicable to group a number of villages so as to form a "relief-work circle," the radius of the circle being four or five miles. Within such a circle the applicants for relief (being residents of the villages thus grouped) could be employed. Some would find work within one mile, others within four miles, and all within eight or nine miles, of their own homes. The necessity for going even eight miles would be of exceedingly rare occurrence. The low rate of pay would deter any but the most needy from coming on the works.

It may be objected that, as there cannot be European superintendence in all these circles, there would be mismanagement, misappropriation of funds, and other evils, and therefore the actual object of the work itself, viz., the relief of the extremely destitute, would be frustrated. There is certainly a danger of this, but at the beginning of a famine the *chief* object of the Government is to prevent the people from sinking into that low condition which ends in death by starvation. I believe that works nearer home (in spite of the objections to them and the evils attendant on them) would have the effect of attracting those who would never go to a distance till they are a long way on the road to their long home by starvation. With works near home I believe the earlier stages of the famine would be better borne and conquered than by works at a distance. The poor will go to the former and live; they will not go to the latter till they are (too often) ready to die. Works near home would render relief-camps much less necessary because the people would save themselves from sinking so low.

I do not defend the apathy or idleness of the people. I merely say that if the salvation of life be the chief object in view, the one method is (in my opinion) more successful than the other. These remarks apply to the beginning of the famine only.

Hon. Gajapathi Row.

When the distress is presumed only temporary the first and foremost steps for adoption by a district officer are encouragement of private charity by way of raising subscriptions and opening poor-houses for children, sick, and infirm, of both sexes, and those that can be admitted to works should be employed in the ordinary public works. But I would not confine the supervision of these working classes to

Hon. Gajapathi Row—continued.

the Public Works Department alone. Any department can manage this business at this stage of the distress.

The admission of each applicant depends upon his ability to undergo the work of labor and to earn his wages, which must be at a higher rate than usual. When an apparently well-built individual is so reduced, either by permanent infirmity or otherwise, it may be considered imprudent to employ him, and he must be excluded from labors and placed with the sick in a poor-house whether supported by the State or by private subscriptions.

When the ordinary works in progress in the district under supervision of any of the departments including Municipalities are not enough to admit so many on work, or when the works already on hand are of such a nature that laborers thus taken up cannot conveniently and advantageously be employed thereon, it would then be absolutely necessary to open special works.

The works to grant relief must be in many places, and large number should never be collected in a single place where practicable.

When work can conveniently be granted them nearer their homes the latter course seems preferable.

To drag them in large numbers in a few places is likely to create and spread contagious diseases, which may tend to tell on them harder than the famine itself.

This arrangement also tends to diminish the stocks of food-grains and drinking water in the neighbourhood, and then importation thereof should be resorted to at increased rates of prices, thereby alarming the country, and encouraging greedy and ravenous merchants to profit themselves. This example is speedily followed by merchants of places where food-grains are obtained.

When the collections are in smaller numbers and the division of men employed are scattered on numerous works there will be less apprehension of such an evil as contagious disease. The supplies of food-grains from the neighbourhood can be obtained without interfering to too large an extent with their stock and drinkable waters of the inhabitants of that locality.

As I had observed above, I do not see in cases of this nature that immediate supervision is to be confined to any particular department. Care, however, must be taken that the applicants for relief are employed on a work suitable to their strength and health, but they should never be pressed to work so far as to give a work which covers their costs of wages paid them as in ordinary seasons under Public Works Departmental agency.

The head of the department of the district, such as District Engineer, however, should have a hand in the general management and arrangement of works, and he must be subject to the general control of the district officer, for a divided authority is always bad; and district officer is always presumed responsible for the efficient working of this system. The instructions and suggestions of the district officer should, therefore, be implicitly and promptly pursued.

Mr. Macartney.

If there are local works in progress under Civil Agency, I would permit women and children and the weaker men of the laboring class only to join them. If not, I would open such works for that class on a bare subsistence wage, and under the labor test only, and provide the works subject to all the tests under the management of the Public Works Department for the stronger applicants for relief. The maximum wage in the latter case should be somewhat more than a

Mr. Macartney—continued.

bare subsistence, but never amounting to a full wage, and should be regulated by the amount of work done. If the distress is merely of a temporary nature, they will gradually drop off when they find that they can do better for themselves elsewhere and under less rigorous restrictions. Local works to relieve the feebler portion of the population are, I think, better under Civil Agency, as the rules of the Public Works Department are too severe in their bearing on such a class. If a number of such works are opened within easy distance, the expense of supervision becomes either too great, or but little progress is made. Then, again, easy opportunity is given to the laborers to flit about from work to work, and there is more liability to imposition. The officer in charge should be always on the spot in order to ensure the performance of an amount of work something commensurate to the daily expenditure. A large work, therefore, presenting no engineering difficulties seems preferable to a number of small ones. If practicable, it is better that such works should be at the distance of three or four miles from the homes of the bulk of the laborers than in close proximity. The responsibility should rest with the district officer, whose duty it clearly is to see that all under his authority are carrying out the orders given them.

Mr. Hurry Row.

At the beginning of the distress, the number of public works should be increased, and they should be placed under local and municipal officers which would prevent waste. Leave the tests to the discretion of these officers, unless these officers are untrustworthy; in this case better officers should be supplied and the matter left to their discretion. Trying to lay down test for such a large Continent as India is preposterous, and frustrates all the good intention of the British Government. The local and municipal officers know people, their character, their ability to support themselves or not, their mode of living, the nature of the work each particular class people are able to do, their idea of work suited to them, their idiosyncracies, their religious belief, their prejudices, &c., while a Department of Public Works Officer or a Civil or Military gentleman from the far north-west or north-east knows nothing of them. None but Civil Officers of the locality are fit to perform this difficult and delicate work. Relief-works must be proposed by officers of the Department of Public Works, sanctioned by the Civil Officers and executed by the local Department of Public Works, civil or municipal officers, examined by superior Department of Public Works and Civil Officers, and paid by civil Treasurers. For towns, works should be undertaken in them or near to them. For villages, some large works like embankments and cutting, for railways, raising a bund for a large tank, digging a large canal, &c., should be ordered, and they should be placed under the supervision of Department of Public Works. These works should not be many miles away from their homes.

QUESTION 7. Under what circumstances should poor-houses be opened to give relief without a labor test? Are there any other practical ways of affording relief at this stage, except through private charity?

Mr. J. G. Horsfall.

It is only at a comparatively late stage that poor-houses need be opened. The necessity will generally arise when the ordinary works allotted for the year are not in themselves capable of affording work for all the applicants for it and large famine works have to be inaugurated. It is when ordinary works and private charity cease to meet the demands upon them that poor-houses become

Mr. J. G. Horsfall—continued.

necessary. I would not admit any persons capable of work into any poor-house.

Emigration is not in vogue here and could not be enforced. Before the necessity for starting relief-camps arrives the allotments of the year both in the Public Works and Local Funds Departments might be utilised to the fullest extent in supplying labor. Private enterprise, such as the sinking, repairing private tanks, and other agricultural improvements, might also be encouraged by loans from Government.

Mr. Price.

At the stage next succeeding that which calls for special works, and which is that when distress has deepened so far that parents are unable to obtain for their wages enough to keep their children from marked emaciation, when the poorer classes find that they cannot support the aged and infirm, when the weakly, owing to reduced food, grow still weaker, and when the artisan, especially the weaver, finds that the demand for his industry is falling off and his earnings becoming in consequence insufficient, and when sickness is increasing, I would take in none but the infirm, aged, the really emaciated, the sick, and children in bad condition. I would exact no labor test, but whenever any one was capable of doing something I would not allow him to remain idle. I know of no practical means of affording relief in other ways than this at this stage of famine. Advances to weavers tend to prevent their falling into idle habits and keep that section of them unable to perform manual labor out of a relief-camp; but, on the other hand, this form of relief throws upon the hands of Government at the close of a famine a large quantity of cloth, of which experience has shown that it is very difficult to dispose. Distributing materials for spinning would require a considerable agency, and the same difficulty in disposing of it as occurs in the case of cloths would arise. Mat, basket, and rope making, &c., are professions which are carried on by limited and particular classes, and giving materials for these, which, in many places, would be very hard and expensive to obtain, would not, in my opinion, afford much relief.

Mr. Whiteside.

I do not think that poor-houses (relief-camps) should be opened in a hurry. At the commencement of a famine private charity ought not to be forced or interfered with in any way. When this famine at first commenced and until it was realized that the distress was going to be very severe a great deal of private charity was practised in this district without the intervention of any Government official. Poor-houses should be opened as soon as it is clear that the distress is so great that private charity can no longer cope with it.

Mr. Crole.
Qs. 7 to 10.

If the number of paupers unfit for labor becomes greater than the ordinary charitable disposition of the native community can support, recourse must be had, even in this stage, to enclosed camps. No other plan is successful. Non-official charity or the introduction of Municipal or local bodies is not to be depended on. The Madras village organisation should be used for obtaining reliable information as to extent of distress.

Mr. McC. Webster.

Poor-houses should be opened as soon as it is decided to reduce the rate of wages on ordinary works to a famine "wage test." By such time there will be a number of sickly and infirm habitual

Mr. McC. Webster—continued.

beggars and others who are not able to work, and these must be provided for. There may also be cases of emaciation, few it is true, but still some in the villages, and these people should be taken to the relief-houses and brought into a condition for work. I do not think private charity would be of any real use at this stage in affording relief, which should, as above remarked, be afforded by Government, first, by works for those able to work; secondly, by poor-houses for the weak and infirm; and, thirdly, when necessary by money-dole for Purdah-nashin women and the sickly and infirm who are unable to leave their villages.

Mr. Pennington.

Poor-houses (closed camps) must be provided for women incapable of work, for the infirm, and for children of a tender age; but it is obvious that, if the bread-winner is employed on relief-work which enables him to earn something for the support of his family, there will be the less need for gratuitous relief with all its humiliating accompaniments; and it is even not impossible that those who must otherwise have come for such relief may be more *cheaply* fed at home.

Mr. Grose.

House-to-house inspection revealing cases where old and infirm people are lying neglected and starving in their homes must determine the time for establishing poor-houses. At the beginning of March 1877 I ordered the village servants to visit every house in the village once a day, to make their watchmen patrol the highways, &c., to give food to starving people, and then send them to the nearest relief-house, and to report the result of their house-to-house inspection once a week to the Tahsildar or Deputy Tahsildar in charge. Subsequently it was found necessary to have special Village Inspectors.

Mr. Martin.

The very poorer people, however, may be reduced to privations approaching starvation for a month or so, and poor-houses are required for them.

Also when a famine is at its height, paupers will stray in large numbers into districts that are not suffering from famine, but in which prices are very high. They will especially resort to the larger towns, and will strain private charity beyond what it can bear. It will be necessary to open poor-houses when the condition of these people begins to get precarious.

Poor-houses should not be opened without a labor test.

Mr. Austin.

I would open poor-houses only when the distress was ascertained to be very great, and for able-bodied persons till such time only as employment could be found for them. At an early stage of the famine this course can hardly be absolutely necessary. It was actually found in the neighbourhood of Vellore that, although numberless persons clamoured for food and represented themselves as starving while raw grain was being distributed, only a ludicrously small percentage of them would consent to submit themselves to the discipline and restraint of a relief-camp. I would leave the earlier stages of a famine to be met by private charity.

Mr. Knox.

Assuming that distress has been taken in time in the manner above indicated, and that prices have not yet risen very high, no poor-houses need be started at the commencement; if the laboring

Mr. Knox—continued.

classes can get proper work and fair wages, they will support as usual such of their relations as are either permanently or temporarily helpless owing to age or infirmity. There of course always will be even in the best of times persons who are reduced to considerable want, but at this stage of distress these may be left to private charity. The only relief that is needed is to afford the poorer classes the means of working for their livelihood.

Mr. T. M. Horsfall.

Poor-houses are a necessary part of Government famine relief measures at all stages of the famine, even the earliest, as there will always be people too weak to be able to undergo any distance or labor test.

Mr. Soobien.

Men who, by reason of extreme youth or old age, or any bodily deformity or mental debility, are incapable of labor and would die of starvation but for the State intervention should be afforded gratuitous relief. If private charity is insufficient to relieve their distress, and if the number of such men is large and is increasing, then it may become necessary to open poor-houses to afford them relief.

Mr. Jones.

When the population is so weakened as to threaten danger, I think poor-houses should be established to give relief without a labor test. It seems to me, however, that proper watchfulness would suggest measures being taken in time to avoid relief being purely gratuitous; it is better to have some return, no matter how poor, in the shape of labor from the person obtaining relief than that it should be entirely free just to save life.

Vencatachellum Puntulu.

When the prices of the staple food-grains rise cent. per cent., poor-houses should be opened to give relief to infirm and to all who, from their appearance, are not able to work. There are no other ways of affording relief at this stage.

Seetharamiah.

As already stated, the old and infirm depending upon charity for support bear a very small proportion to the entire population; and at the early stage of distress, by giving employment to those requiring it, the means for giving charity and the number requiring it would remain nearly the same for a time, and there would therefore be no necessity for opening poor-houses for feeding the helpless and those affected by bodily infirmities. But when it is discovered that in consequence of increased distress private charity has begun to cease, and that the poor and infirm people have been forsaken by their well-to-do relatives and friends, which fact can be known by the increase in the number of destitute wanderers and beggars in emaciated condition, poor-houses should be opened only for such without a labor test. I do not see any other practical ways of affording relief at this stage.

Mr. Cook.

Poor-houses should be opened to give relief without a labor test to those who are so reduced by emaciation as to be unable to work, but who may, by careful feeding and watching, recover their strength and be fit for labor. At the early stage of famine, therefore, when emaciation is not visible among the people,

Mr. Cook—continued.

poor-houses are unnecessary, as they are very expensive to get up and maintain, and people, as a rule, will not resort to them unless in real need and absolutely compelled to do so through sheer want. There may be, in fact there are sure to be, some people in the villages who are old and incapable of any work, and not likely ever to be, and who are dependent on their relatives. If these relatives are on the works (or who have forsaken their old dependents) and earning a small daily cooly, they will find it very difficult, if not impossible, to support these relatives, so that a dole-money might, I think, be given at this stage to such old people.

Mr. Oldham.

It is always easy to open a poor-house, and also to see when it is wanted, which apparently is not for some months after other needful relief operations are in force. The practical way of affording gratuitous relief is by village-home relief. With the system of works near the homes of the distressed in force, and a very restricted home-relief, poor-houses in the general sense of the word are not needed at all. Chumparun, in 1874, was an instance of this. So was Adoni from March till May 1877. A small hospital or infirmary would suffice.

Lieut.-Col. Bartleman.

A poor-house on a small scale might be opened from the earliest stage of the famine to feed those destitute poor unable to work from sickness or other infirmities, or it might be made a hospital camp, but in either case I would recommend the "closed system" being enforced from the very first. Emigration might be tried, but I do not think it would be successful or materially relieve the distress.

Major Baynes.

They should be opened simultaneously with the special works, and cooked food should be supplied in Circumstances under which poor-houses should be opened. them to the infirm and young dependents of all persons who were employed on a special work; but I am confident that this mode of relief is obstructive to the preservation of life, whereas if you simply split up the poor-houses into village kitchens, I know of no other means so effectual for rendering relief. Gosha women and some high-caste persons must receive relief in money if they are to be saved at all.

Major Ross.

The poor and emaciate can always be admitted to a poor-house for relief, and those presenting themselves who are comparatively strong and fit for work can be refused admittance and a work ticket given to them; if they choose to go to the nearest works and exert themselves, they will get the means of procuring food.

I see no other means of affording relief.

Mr. Weekes.

As I have remarked before, poor-houses should only, I think, at this stage be opened by Committees dispensing funds raised by subscriptions supplemented by a Government donation.

Mr. Scanlan.

Poor-houses without labor test should not, I think, be opened till the last extremity, and only when applicants are physically incapable of any work at all, or there is good reason to believe that private charity is entirely withdrawn from such as are incapacitated for any kind of work; otherwise it has every tendency to pauperise the people at the outset.

Mr. Baudry.

Poor-houses might with advantage be opened at this period for the crippled, children, and aged only. Their willingness to undergo confinement is a sufficient test that they are destitute.

Major Shaw.

Poor-houses might be opened to give relief without a labor test when the condition of the destitute poor is such as to prevent the test being applied.

Major Mead.

No one should be allowed to remain in any Government poor-house (except for a day or two when in the search of work) that is capable of work; those that are should be drafted to works as soon as practicable.

Poor-houses or relief-camps should be opened when there are large numbers of wanderers incapable of doing work and evidently suffering from want of food.

Lieut.-Col. Hasted.

Qs. 7 to 9.

Poor-houses should not at this stage be opened by Government; private charity will, if organised properly, do what is wanted in large towns, but the organisation can only be effected by the Collector, Vice-President of a Municipality, or other Government Officer, to whom the people are in the habit of looking for guidance and assistance. Hospital sheds are at this time wanted, and might be attached to Municipal and Taluk Dispensaries, the charges being met by Government. Deficiency of nourishment quickly induces disease, and the dispensaries cannot provide sufficient accommodation for in-patients.

Surgeon McNally.

Hence my opinion is that the labor test should be enforced during the early stages of distress. At that time the only suitable form of gratuitous relief is private charity, and it cannot be better directed than in supporting existing charitable institutions. The most worthy of these might also receive some supplementary assistance from the State.

Mr. Macartney.

At the early stage of a famine I do not think that the establishment of poor-houses is necessary or advisable. The mendicant portion of the population can be assisted at much less expense to Government. I would reserve the establishment of relief-houses to a later period of the famine, and for such of the younger and middle-aged portion of the population as from want had become temporarily unfit for work, but who, under the dietary of the poor-house, might speedily be recovered for labor.

Rev. Newport.

I would not open a poor-house for any others than those who are absolutely unable to work. When the inmates of such houses become able, they should be drafted off to work.

Hon. Gajapathi Rau.

When the applicants are totally reduced in strength and health by distress, and when they consist of old men and women, children, and the sick unable to work for themselves, they must at once be admitted into poor-houses.

Assistance must be given from local friends and Municipalities besides from private charity.

QUESTION 8. Is there at this stage of the operations any field specially appropriate for the intervention of private charity? If so, what is that field, and how should the charity be organised and directed?

Mr. J. G. Horsfall.

Public meetings might be held under the auspices of the leading officials and contributions raised towards the relief of the old, bed-ridden, helpless, and gosha people in their respective circles. This may be done in every town and taluk station, and charity distributed under the supervision of a Committee of officials or non-official members selected for the purpose and subject to the control of one Central Committee.

Mr. Whiteside.

I do not think that there is any field to which private charity should be more particularly directed; as I have said above, the less private charity is meddled with the better when famine is in its earlier stages. When the distress is very severe, and it is seen that the charity of private persons is being abused or misapplied, so that persons not really entitled to it are excluding from relief those really in distress, then it will be proper for District Officers very cautiously to interfere and to point out how the charity should be best applied. But such interference is always very jealously regarded by natives. They believe that by allowing such intervention they lose some of the virtue acquired by their charity, and my experience in this famine has shown me that when the District Officers began to show a desire to direct the exercise of private charity, such charity gradually was discontinued.

Mr. McC. Webster.

I do not think that at this stage of relief operations there is any field specially appropriate for the intervention of private charity. I will give my reasons in answering Question 43, Chapter III.

Mr. Grose.

Private charity seems to me to be dangerous when the time for poor-houses has arrived. People are generally ready to give money then on the condition that they may have a voice in the management of the poor-houses; but it is essential that such places should be very strictly disciplined from the first and under the entire control of the Collector.

The charity of neighbours who give their money directly to deserving objects whom they know is an unmixed good; but I do not think any organised charity can exist by the side of State relief till a time has come when the people, though not starving, are in great need of help to enable them to recover from the condition into which famine has brought them.

Mr. Sewell.

In the earlier stages of famine private charity should be organised and conducted on some system. What I mean is that public meetings should be held, subscriptions invited, committee formed, including officials and non-officials, and relief distributed. But if a famine continues for a long period, this kind of relief generally breaks down locally. This is the result of my experience here. We held a large meeting in December 1876, at which a considerable amount of money was collected, and poor-houses were opened both in Trichinopoly itself and in the district at which food was given to paupers. But the numbers increased largely, and, after about seven months, our funds ran short and we were obliged to close operations.

Mr. Pennington.

I can hardly imagine that there can be any stage of a famine when private charity might not intervene with advantage, but unfortunately it seems almost impossible to organise any great system of private charity without the aid of the Government officials. Nothing can be done without the Tahsildar. Otherwise the best form of private charity would probably be for employers of labor to pay their employes in grain *at full rates*. When, however, there is no longer employment for the labor available, a District Committee should be formed, presided over by the Judge or some other prominent member of society, and Sub-Committees should be formed all over the district to collect information and distribute the funds available to the best advantage. The Municipal Commissioners may well undertake this duty in the towns, but the Local Fund Boards are not suited to work of this kind, though their individual members will generally be members of the Relief Sub-Committees.

Mr. Austin.

At this stage of the proceedings private Committees might be organised for collecting subscriptions and giving relief in special cases. No doubt there would be a great waste of money and much misplaced charity, but this can scarcely be avoided.

Mr. Knox.

I do not think that at this stage any organised private charity is necessary. Those people who from age or infirmity cannot work, and who have no relations, manage in ordinary times to get help in their villages, and they would still be able to do so at a time when the distress had not attained such a height as to affect the great bulk of the people.

Private charity in general, when it consists in simply giving alms, except to helpless people unable to work, does more harm than good. The only two ways in which it can operate beneficially are, in my opinion, employing labor or reducing the price of food, viz., either by contributing to works in progress or by bringing in grain into the district and selling it at reduced rates, and especially in localities where large works were in progress.

Mr. T. M. Horsfall.

Private charity (but not unless very *judiciously* and *conscientiously* conducted) is beneficial when famine begins to be severely felt in towns. The weavers in Madura are not to be got at in any other way, and they suffer more than others in famine times. Local organisation by local gentlemen is the only practicable method of getting at such people, but the great difficulty is that natives (of whatever caste or standing) are not to be trusted really conscientiously and fairly to distribute private charity. Caste people will not go on in the relief-works or to poor-houses.

Mr. Lee-Warner.

My experience of private charity among the natives is that it is generously given, but grossly misapplied. In the early stages of serious general distress a subscription list should be opened in the endangered district, and a Committee appointed for the management of the funds so raised. The most appropriate field for the application of it will be found to be in connection with the Local Fund and Municipal Dispensaries, which are becoming every day more popular. Natives are very charitable in their own ways; but they have no idea of supervision and control; and a selection

Mr. Lee Warner—continued.

of proper subjects of relief among a crowd of applicants is opposed to their ideas. With the aid of this Committee, therefore, all public distribution of food at conjee-houses, &c., in the same town should be suppressed; but on suitable ground near the dispensary a large enclosed camp should be formed, and into this institution should be daily drafted the miserable paupers who are unfit for work, and who are begging about the streets, many of whom require medicine as much as food. But there must be some shadow of authority over the institution, else, like ordinary native charity, it will become unmanageable; and therefore it would be necessary, in my opinion, for the resident Government officer to have the supreme control over it. Persons to whom charitable relief is extended, but will not submit to control, should be left to shift for themselves.

Mr. Weekes.

Purdah-nashins might, perhaps, be distressed and should be relieved by Sub-Committees of native gentlemen.

Seetharamiah.

The field specially appropriate for the intervention of private charity embraces the people whose social position in life and previous habits would not allow them to avail themselves of the help afforded by the opening of works by Government, and who would not go to a poor-house nor resort to begging. These are the middle-class men. If funds could be procured from any private charity, it should be directed to affording relief to these people, which should be in the shape of money paid either gratuitously or for light works to which they are accustomed in their homes, such as weaving, spinning, cleaning cotton, &c.

Mr. Oldham.

Towns are always a field specially appropriate for the intervention of private charity at all stages of a famine. A Committee would be formed. If it is weak in funds and working members, it can deal with the fixed and identified residents of the town who are in distress, and to whom out-door labor would be a special hardship. It can work by dividing the town into as many portions as are necessary, each portion being visited and managed by the member of the Committee thereto appointed, or by a paid agency. If very weak, it can reserve for its work one or more such portions. It can relieve wholly gratuitously, or by affording in-door work suitable for the recipient. I doubt if it is wise for the State ever to undertake such operations, though I have seen them largely resorted to.

It can also, if strong enough, superintend a hospital attached to the town for the reception of all comers. Apart from this, it is only mischievous if the Committee engages in any relief operations to which outside people can be attracted. But if very strong, it can afford out-door relief labor for the pauper residents of the town who are fitted for such work.

Individual wealthy and charitable natives often open kitchens in which food is dealt out in a very indiscriminating manner. These are very mischievous, and such persons might be persuaded to expend their charity upon hospitals to which only the obviously qualified are admitted. The congregation of strangers and country people in such refuges is not hurtful. Means would be taken for drafting them to suitable relief operations on their discharge from hospital. It is not necessary for a hospital to be large and central.

Mr. Oldham—continued.

If it gratifies the donor to have his charity apart and to himself, it matters little how numerous and scattered these temporary institutions are.

Mr. Cook.

At this stage of distress, I do not think there is any need for the intervention of private charity. Opening up works for those able to go, and distribution of dole to the relatives of those on the works and who really cannot maintain their relatives on their wage, is, I think, quite sufficient. This distribution of dole should be very carefully carried out and only given under peculiar circumstances and personal inquiry on the part of the district officers.

Lieut.-Col. Bartleman.

The circumstances of the relatives of some of the distressed people might be inquired into, and if able to support them should be made to do so, or if any starving persons were found in any village but who would not accept State relief, the well-to-do inhabitants or landowners might be made to supply them with food; in fact make the village responsible that all starving persons were either sent to receive State relief, or feed them at their own expense, and in all cases of death from want of food, the rich and influential residents would have to take the consequences of such penalty as might be inflicted.

Major Ross.

Private charity is quite inadequate to cope with distress of the magnitude of the late Madras famine, or of any general distress.

Mr. Travers.

At this stage I think "nurseries" might be opened for destitute children and orphans, and mothers might also leave their children there for the day when going to work, these children being fed; thus allowing the mother to spend the most of her earnings for her own support, thus keeping herself strong and able to work.

Village relief might at this stage be adopted, a small daily money-dole being given to those in actual distress and who are physically incapacitated for work.

Major Shaw.

A special field for private charity is in the support of gosha women and others who are prevented by caste prejudices from seeking relief in the ordinary manner. Money for the purchase of seed-grain and draught bullocks might also be given from private charity funds, as well as for repairs to houses and relief to tradesmen out of employ. The charity may be organised and directed by a Central Committee with Local Committees in communication with it.

Mr. Macartney.

There is no doubt that at this stage private charity could, and ought to, do much to alleviate the existing distress, but men are too ready to throw their personal responsibility upon a State and to rest content with doing little or nothing. Committees of the well-to-do portion of the community might be formed, subscriptions raised, and a system of relief organised for the necessitous and infirm poor in towns and important villages. Relief-houses might be established, a register being carefully kept of all recipients of relief, and a copy of this register, as a means of checking imposition, furnished to any Government officer likewise dispensing relief. It is evident that such a Committee would be in a far

Mr. Macartney—continued.

'better position to find out the truly necessitous in their midst than any one less intimately acquainted with the people. If such a relief-house only undertook to relieve the inhabitants of a certain section of the town or village, the dispensing of relief would be much facilitated and there would be much less chance of being imposed upon. I think that some such scheme as this might be adopted with advantage especially when the distress is of a temporary nature. One year in which there was here partial distress among the poor—I think it was 1873—a well-to-do trader named Karesiddappa (since dead) instituted and carried out at his own expense a system of the kind in Sundoor.

Rev. Newport.

Advances to cultivators appears to be the best mode of relief at this stage, but this can only be done by the Government, as private charity could not possibly meet all the demands made upon it in this direction, and moreover only the Government could get proper security for the repayment of the advances. Private charity could undertake the relief of those persons (poor relations, servants, and other dependants) who subsist on what they receive from their patrons. Each householder according to his means would thus bear an appreciable share of the burden, and would see, as no one else could, that such relief was absolutely necessary and was properly administered.

Lieutenant Hamilton.

Private charity can best be shown in the establishment of nurseries for the feeding of infants and very young children found to be in a state of emaciation.

Mr. Hurry Row.

Leave private charity alone. To meddle with it with Governmental theoretical rules, tests, &c., is to destroy it and embarrass Government.

QUESTION 9.—To what extent and in what manner may the organisation of Municipalities and Local Fund Committees, so far as they exist, be utilised in this stage? In the absence of such local bodies how could the co-operation of influential non-official persons be best organised and utilised either in connexion with the regular district authorities, or otherwise? State specifically what plan would be suitable in your district?

Sir W. Robinson.

Through every stage of a famine administration Municipal and Local Fund bodies should be coupled up most closely with the poor-law administration of their towns and districts. No more serious reflection lies against our administration of the late famine than the grave and persistent neglect and traverse of this political and economical necessity under the exigencies. Further, in every village and group of villages, what I will term (for familiarity of expression) "Boards of Guardians" can be organised for the aid and observation of the poor and starving in their community and ministration of relief; and the organization should be insisted on. Obstacles and incredulities will necessarily emanate from the official bureau (European and Native) as to a more popular administration of poor relief in India; but I trust that the Commission will see their way to insist on this matter as a primary one in all future

Sir W. Robinson—continued.

famine administration. Taxational responsibilities enhance the popular claim to participate in management.

Mr. Whiteside.

When the distress is only temporary and slight, I do not think it is necessary that Municipalities and Local Boards should take direct action, allowing persons in distress to be relieved by private charity. When, however, matters are clearly becoming serious, then the assistance of Municipal Commissioners and of members of Local Fund Boards may, with great advantage, be invoked to organise a house-visitation in large towns, and to make lists of persons really in distress, as also to supervise the distribution of doles to them. This was the system that was had recourse to during this famine, and it was found to work generally satisfactorily. I do not think it would have been possible to have properly distributed the large sums of money from the Mansion House Funds but for the assistance rendered by these native gentlemen. In this good work many non-official native gentlemen also afforded cheerful assistance; but this was only in large towns. Out in the taluks of this district the great bulk of the population are very poor, and there are extremely few large landed proprietors whose assistance can be called in. Not a single one of the great Zemindars of this district took any direct personal interest or share in the distribution of charity throughout the famine. Whatever was done by them, or in their name, was supervised by their subordinates; and this extended also to the attendance of Zemindars and Jaghiredars even at meetings of the Committees for the distribution of Mansion House Funds. Not one Zemindar or Jaghiredar attended such a meeting in person, but merely sent their Dewans or Secretaries. They did not even send their sons to represent them. It will, therefore, in the event of such calamity as a famine again occurring, be idle to expect such native gentlemen to take a direct share in the exercise of any scheme of charity. I am not prepared to recommend the adoption in future of any other plan than that followed out in this district during the famine, now drawing to a close. Every taluk or division was marked out into a number of divisions, each containing about 30 villages. Each such division or sub-division was looked after by a Relief Inspector, specially appointed for the purpose, who travelled constantly from village to village, and, in consultation with the village officers, drew out lists of all such weak and infirm people who needed relief at home. Each taluk then was supervised by one or more European officers specially deputed by Government, who checked the action of the Relief Inspectors, and these officers also superintended the working of the poor-houses.

Mr. J. G. Horsfall.

The Municipal Commissioners might be utilised in their respective towns. Each Commissioner would have a division of the town allotted to him and would, with the assistance of a sub-committee, be able to ascertain correctly the condition and wants of the residents in his division.

Local Fund Committees cannot be so utilised.
 Clause II.—See above Question VIII.
 Clause III.—Do. do.

Mr. McC. Webster.

The action of the Local Fund Boards and Municipalities should be confined to seeing that at the earlier period of distress their budgeted works were carried on and all applicants for work admitted. Further

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Mr. McC. Webster—continued.

than this the services of the individual members could not be utilised, and besides I do not think their intervention necessary. The members would, of course, be chosen to act on local charitable committees whenever a subscription was opened later on.

Mr. Longley.

The services of the Local Fund and Municipal Committees might at this stage be utilised to dispense private charity and to pick up cases of peculiar distress and bring them to the notice of the District Collector or his Divisional Officers; this was done at the early stage of the distress in Salem with success.

Mr. Sewell.

I do not think Municipal or Local Fund bodies are of much use for this kind of work. The simplest plan is for the Collector to call a public meeting and appeal to the liberality of residents, Europeans and Natives. From the former it is best to get a promise of monthly subscriptions, from the latter I would prefer a donation once for all. Every Collector who knows his district would be able to pick out the non-official gentlemen who would really be of use on a Committee. But there must be the official element as well to set things going and to organise. When the Local Committee for the Mansion House Fund was started, they endeavoured to avoid the official element as much as possible. A few non-officials, European and Native, gave their services and did good work, but in the end they had to rely greatly on officials, such as Divisional and Taluk Officers, to undertake the distribution of relief.

Mr. Grose.

At this stage the organisation of Municipalities and Local Fund Boards is of no use as it at present exists in this district.

Mr. Price.

In Cuddapah the Vice-President of the Municipality, a Native Surgeon and very intelligent and active officer, aided by one or two of the Commissioners, managed, in a very satisfactory way, a feeding kitchen maintained from private funds assisted by a Government grant. This was before village-relief began. After that period the Government officers took over the whole work of relief. If the members of Municipal and Local Fund Boards would, generally speaking, take an interest in matters, they might be of great use in looking up cases of distress and pointing out where help was required. I requested one member to assist me in the matter of gosha females in want, and he gave me a return of 1,200; on checking his list by other agency the number was reduced to something like 70, and it was found that the Commissioner had put on the list several of his own relatives who were not in straitened circumstances. After this experience I thought it advisable not to make any further attempt to enlist services not tendered. There are no influential non-official persons in this district whose aid could be looked for or obtained in view to co-operating in relieving distress. This is owing to the large landholders being, almost without exception, residents of Madras, where they remain, receiving their rents from their tenants who are, generally speaking, small farmers.

Mr. Austin.

Municipal Committees might to some extent be utilised at this stage, but not Local Fund Committees. In the absence of such bodies private committees might be organised and to some extent rendered

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Mr. Austin—continued.

useful under the immediate supervision and control of District Officers. In the town of Vellore (with a population of about 40,000) a Committee composed chiefly of Municipal Commissioners with a few Europeans and presided over by Major McLeod has worked most satisfactorily in the distribution of charitable relief (Mansion House Funds). A house-to-house inspection was made and inquiries as to the condition of each applicant most minutely held. The town was told off into sections under various members of the Committee, and thus the labor of inspection was divided among them. On the whole the system worked well, though unfortunately some grave frauds were committed by a leading member of the Committee. In the taluk, as far as I can see, distribution of charitable funds must be left to District Officers aided by their Tahsildars and Special Relief Officers. Committees would not, I fear, from my own knowledge of the country, answer. The difficulty of getting together a body of men with sufficient energy and ability to efficiently supervise charitable relief operations, and with sufficient honesty to refrain from plundering, would be very great.

Mr. Knox.

As I do not advocate any organised plan of private charity or "alms" giving at the stage, no help in this direction would be required from Local Fund or Municipal bodies or non-officials. These bodies might assist the Collector with their advice in choosing the most useful works to execute. I do not see any other way of utilising their services, for, as stated before, the execution of works should be entrusted to the Public Works Department only.

Mr. Jones.

The great point, in my opinion, in relief measures at this stage should be to prevent the population from getting dislocated or moved from its normal centres. Once the population becomes itinerant in search of food, it is difficult to control or check it, as this form of vagrancy soon becomes congenial to the tastes of certain classes. I would therefore specially utilise Municipal agency to organise and supervise measures of relief within their limits, and for that purpose would give them lump grants from Famine Funds to be expended as they consider best in affording relief to the distressed of their districts and keeping them from wandering away from their homes. A little help in time judiciously administered may enable many persons who otherwise would probably become subjects for entire maintenance by Government to tide over the crisis and thus be kept from adding to the ranks of the settled paupers of the country.

Mr. Soobien.

The services of members of Municipality and Local Fund Board may be utilised in supervising the distribution in towns of Government gratuitous relief when it becomes necessary. But as matters are at present, when public spirit has not developed to any large extent among the leading public men, and when public-spirited men are therefore at a discount, I do not think the gratuitous willing service of the Municipal and Local Fund Members for supervision and other purposes can be much calculated upon.

When these bodies are absent I would recommend the division of a taluk into circles and the formation of petty Sub-Committees, of which a Government servant and two or three willing, intelligent, and influential private persons will form members. The duty of these bodies will be to supervise the distribution of gratuitous relief by private or Government charity, to note the condition of the people, and in

Mr. Soobien—continued.

short to obtain all other useful information which may be of importance for a correct appreciation of the position of the affairs and the progress of events in connection with famine. But I wish once more to reiterate my candid opinion that under the present circumstances the service of such an unpaid and consequently irresponsible agency actuated by no public spirit cannot be of much value.

Mr. Seetharamiah.

The services of Municipal and Local Fund Members might be utilised in Municipal towns and places near their residences in distributing money-dole and materials for work, such as cotton, thread, &c. They cannot be expected to leave their homes for distant places for the performance of gratuitous work. Other influential non-official persons, who can really afford to find time for doing gratuitous work, are very few; and these again would not for the most part have inclination to do arduous and responsible work. Such public-spirited men are wanting in the interior of the district. The services of the members of the Municipal and Local Fund Boards and of the few willing influential non-official members might be availed of to the extent possible. Certain it is that without the active assistance and co-operation of Government officers these men would not undertake the duties of distributing wages to laborers, keeping accounts, &c. So far as the distribution of private charity contemplated in Question No. 8 is concerned, the work might be solely entrusted to local non-official bodies and Municipal and Local Fund Boards, as has been the case* in the disposal of the Mansion House Funds during the

* Not entirely. I believe that without the official element and assistance the distribution would not have been as effective as it was. The Collector or Judge was generally the President of the Local General Committee, Division Officers being Presidents of the Local Sub-Committees, on which also were Tahsildars, Munsifs, Medical Subordinates, and other officials.—A. McC. W.

late famine, the Government officials rendering such information and assistance as might be asked for.

Mr. Cook.

The organisation of Municipalities might be utilised to give work to the urban population by employing them in repairing their roads and lanes, in cleaning drains, &c. The Local Fund could find employment for the people on their roads, of which there are many in this district. A season of temporary distress would be a good opportunity of putting these roads in good repair, and as these roads are in ordinary times under the care of the Tahsildar, Civil Agency would be at hand to supervise the work.

I think in times of famine or distress the co-operation of non-officials is not advisable, for, however willing they may be at first and anxious to please, they cannot, from the nature of their occupation, be so acquainted with the people as District Revenue officials, who are always moving about; and, moreover, they soon find that travelling, which is essential to relieve distress, tells upon their means when they have no allowance to assist them. They then gradually drop off, and if the District Officer be relying on them he may suddenly find himself single-handed.

Mr. Oldham.

In Midnapore, in February 1874, the District Officer (Mr. H. L. Harrison) had all the Municipal and Local Fund Budgets reconsidered, and a scheme of work calculated to afford relief prepared for each of them, savings being effected as far as possible from objects not calculated to afford relief. I prepared this scheme myself under his orders. Owing to a change in the circumstances of the district

Mr. Oldham—continued.

it was not resorted to in its entirety, but had the pressure which was first felt lasted, the scheme would have afforded large relief with very little extra strain on the Municipalities and the Local Fund Committee.

In Adoni the Relief Committee, which latterly administered the entire relief in the town with a population of 23,000, was in composition almost identical with the Municipal Committee. As regards co-operation with influential non-official residents, no hard-and-fast rule can be laid down, except that such persons' services should be sought whenever available.

In Adoni there is no representative of the class apart from the members of the Town Relief Committee. In Chumparun, in 1874, individual planters took the entire charge of the relief administration, including relief-works, in large tracts; and their administration was both economical and thorough. In the same district some petty Zemindars did the same with regard to individual villages or small groups of villages; in some cases providing work, advances, and home-relief from their own pockets; in others administering State funds, or providing thoroughly for home-relief on the understanding that all residents of their villages, who were qualified and fit for the relief-works, were admitted to them.

The services of Missionaries are nearly always very valuable, either as dispensers of charitable relief, or as superintendents of State relief in specified tracts or circles. This year charitable relief in villages in the form of aid to agriculturists is being dispensed in the Bellary and Adoni Divisions solely by one Missionary (the Rev. E. Lewis, L.M.C.), whose admirable administration in conjunction with the Government officers was seen and tested last year.

Mr. Weekes.

I do not think the ordinary establishment of Municipal Committees, which generally consist of Conservancy Inspectors and tax collectors, would be of service to distribute charity, but no doubt they might be able to report cases of distress.

The members of the Committees might be of great assistance in making known and relieving cases of distress. They might have separate wards of the towns allotted to them. Well-to-do merchants and others above suspicion, or whose name is a surety for honesty, might be nominated Commissioners to relieve distress.

The choice would be rather limited in some places. In the Chumparun District I was fortunate to secure the assistance of several Indigo planters who were thorough gentlemen, more or less wealthy, and who rendered me every assistance both in carrying out road and tank works, and in dispensing gratuitous relief.

Rev. Newport.

Municipalities and Local Fund Boards could do much good by providing additional useful works on which the suffering poor might be employed. This could conveniently be done by Municipalities, as their organisation is more perfect, and the area of operations more circumscribed, than those of the Local Fund Boards. In the earlier stages of a famine Municipalities should be held responsible for the relief of the resident poor.

Non-officials would be willing to aid in the work of famine relief, and might be requested to act as temporary Government servants, and thus share the burden and relieve the pressure of the ordinary (and in famine times over-worked) Government staff. This could be done only after careful consultation with each person, as the leisure and condition of health of each will vary. In towns where a

Rev. Newport—continued.

Committee of such persons could be formed a special department of labor might be assigned them by Government, and the members might arrange among themselves how the labor should be divided.

So far as I know this district, this utilisation of non-official help is only possible in the Municipal towns and the head stations of the taluks.

Hon. Gajapathi Rau.

After meeting the requirements of the district and the Municipal towns, the surplus of their funds, as far as practicable, be better appropriated for the relief; and the establishments employed therein, as well as the members of the Municipality, should be allowed and advised to exert themselves in undertaking management of the poor-houses or relief-work for the purpose of economy. This was followed in this district.

In the absence of these local bodies the wealthy respectable inhabitants and proprietors and Zemindars of the district should be asked by the District Officer to co-operate with him in either contributing to the funds or undertaking the management of poor-houses and relief-works in places within their reach.

In the district of Vizagapatam, besides Municipal and local bodies, those that were employed under wealthy Zemindars and proprietors and merchants can be induced to undertake such charitable service. In this and in last year such co-operation and services were rendered:

QUESTION 10. Have cases occurred in which such measures as those referred to in paragraph 31 of Chapter III, regarding village inspection, would properly be introduced during this the earliest stage of distress?

Mr. Whiteside.

No. I have already said that at the earlier stage of a famine there should be no direct interference on the part of the State. Private charity should be left to take its own course unfettered. As soon as private persons see that the State or public charity is prepared to intervene and to assume that duty which they hitherto have unsolicited been performing, the springs of private charity at once begin to dwindle and dry up. Public charity in times of distress should not be had recourse to until it is manifest that the evil has attained a magnitude that is beyond the means of private individuals to arrest.

Mr. McC. Webster.

Not that I am aware of, but village inspection and money-dole relief should be organised as soon as poor-houses are established. The necessity for both occurs simultaneously.

Mr. Longley.

Recourse was had to the house-to-house visitation, picking out the classes mentioned in Question 31 in the town of Salem by Municipal Agency at the early stage of the distress.

Mr. Grose.

I consider village inspection by Famine Inspectors having Circles like Revenue Inspectors essential from the time that the necessity of having poor-houses becomes probable. Till then the Revenue Inspectors and the village corporation will do what is wanted. From these chiefly will come the information as to when poor-houses are wanted.

Mr. Sewell.

If relief houses are once opened, I think the sick and infirm who are in real need will find their way to them. Even women who are ordinarily gosha come out for the purpose. I do not think that, in the earlier stage of famine, any special organisation is required for this class.

Mr. Martin.

Yes; I think that in some of the worst villages of Pulney Taluq, a village inspection should properly have been introduced if there had been an establishment for the purpose. Their case was met by relief houses, but not so completely as by a village inspection.

Mr. Lee-Warner.

Cases have occurred in which inquiries conducted in the villages have led to the timely discovery of starving families; but in the early stages of distress any measures of village inspection conducted under the authority of the Government have such a demoralising effect upon the ordinary supporters of the poor and infirm in the villages that they had a thousandfold better be left alone. If any thing dries up the springs of private charity, it is Government interference in the villages at this stage.

Mr. Austin.

In my opinion the moment it is an established fact that famine is imminent, village inspection under close supervision cannot be too soon organised.

My opinion now is that there will always be parts of taluks in which matters will be much worse than in others, and that village inspection will be required at a very early stage of a famine in such parts.

Mr. Soobien.

At this stage of distress emigration is sure to take place, and is in fact an indication of it. As a rule the able-bodied members of a family emigrate and the elder members who from various causes may be incapable of labor are generally left behind in their homes. These if they are not taken care of may starve as they have none left of their near relatives to support them. To see if there are such persons in the villages and to take them for relief to places where there is an organised system of private or State charity is absolutely necessary, and for such a purpose village inspection should be set on foot when emigration is seen to be active. From my experience I think that such cases must have existed at this stage, but they were not noticed at the time.

Mr. Jones.

I think the classes referred to in paragraph 31 of Chapter III should be searched out and relieved in their homes at this stage, as it is likely to save much misery and suffering to the poor and much trouble to those concerned in administering State relief.

Vencatachellum Puntulu.

Village inspection was introduced in the late famine by appointment of additional inspectors for that duty. Such inspection is not necessary at the early stage of distress; but it is urgently required when there is a famine.

Mr. Seetharamiah.

I have seen no cases requiring the adoption of the measures suggested at this earliest stage when private charity would still have continued—see also answers to Question 7.

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Lient.-Col. Bartleman.

There would rarely be any necessity of village inspection were Monegars and the village authorities to at once report cases of this kind, and give their hearty and full co-operation in carrying out the orders they receive regarding relief operations.

Major Baynes.

A register of persons capable of labor or permanently or temporarily incapacitated by infirmity or old age or by tender age from earning their own support should be prepared as soon as there is the slightest indication of the distress assuming a permanent character; in fact such a measure is imperative; if deferred till the necessity for affording gratuitous relief has arisen, the distress can never be properly got under control and all measures for relief will become a mere scramble; such registers were prepared in my taluk by the end of January 1877 and again in March; they are primarily drawn up by the village munsifs and then tested by the village inspectors, and are frequently subjected to the scrutiny of the European officers in charge of relief operations.

Propriety of introducing measures specified in para. 31, Chapter III, Section 2, at an early stage of distress.

Mr. Weekes.

As I before observed the springs of private charity are dried early in the day even in scarcity before famine supervenes, and these cases, the first to succumb, should be attended to.

My plan in Chumparun was either to see and register the cases in the villages or to order the village Putwarier to send them into the factory within the domain of which they were residing, and request the planters after personal inspection to register their cases. On registration the village Putwaries were supplied with grain daily through the planters or by myself by an order on one of my grain-stores. The registered people were supplied with tickets.

In Cuddapah this class were fed daily by the village authorities, who kept registers of them. Careful village inspection tested the proceedings. But this is scarcely *à propos* of the question as I am now speaking of famine time.

Major Ross.

I do not think that it would be of any use at the early stage of a famine to institute village visitation for the purpose of relieving the cripples and infirm only, for any money or even grain given to them would be partly appropriated by others.

Families will support their poor relations, and the village generally will aid the common paupers as long as they have anything to give; so the class referred to had better be left until State gratuitous relief is made general.

Mr. Oldham.

Yes. In Chumparun in 1874, and in Adoni in 1876, as instances, and in all cases when it is known that the distress will be severe and lasting. I only mean, however, that the village inspection organisation should be created and ready. Its work would be at first to get familiarised with localities, to watch and to report, and to direct people wandering in search of employment to the relief-works. This would prevent or mitigate the difficulty which the bands of wandering poor flocking to the chief towns create. The time when this organisation would have to work in the actual distribution of relief would be sure to come, and the Civil Officer who controls them can easily judge when it has come. It will not be at a very early stage of the distress, because private charity continues to afford relief till the progress of distress has destroyed or contracted its resources.

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Mr. Cook.

I think that only when famine is at its height, or likely to become very bad, is rigid village inspection absolutely necessary, for it is then that the people, really through sheer want, begin to neglect their relatives. At the early stage of distress, therefore, I think, relief works are the only things that are required, though there are some cases, as mentioned in answer to Question VII, where dole might be introduced. A great deal, however, depend on the distressed village. If it is one that in ordinary times is a poor village and the people never well-to-do, then I think a thorough inspection of those villages at this time would be advisable, but if the village is generally a rich one, and only a few are affected there, I consider a thorough inspection not requisite, for, to carry this out, a large staff of officials is very necessary and money-dole when once started is very apt to increase rapidly and more than is really needed. In my taluk only in one or two villages was dole given at the beginning of distress and that in isolated cases. When the distress got very bad, a rigid inspection of all the villages was made and dole systematically introduced.

Mr. Macartney.

Cases of the kind referred to did occur in an early stage of the recent famine, but they were brought to notice by the village authorities who had been previously enjoined to report all such cases.

QUESTION 11. What local charities exist in your district for distributing food to the people? Are they appropriated to any particular class, or are they available in times of distress for feeding people of all classes? What is their annual value, and how many people are benefited by them? How are they managed. Could they be made more effectual for charitable purposes in times of famine?

Mr. Pennington.

I annex a statement showing in abstract the number of chattrams in the district with their income and the classes of people who benefit by them. The numbers of those who probably benefited by them can best be estimated from their income. Eight of them are managed by the Local Fund Board and the rest are in charge of private individuals. No doubt the funds might be spent to greater advantage under a better system than prevails in the management of most charitable institutions:—

Class.	Number of Chattrams.	Annual Income.	Number of Men fed.
		RS. A. P.	
First	4	13,241 0 0	All comers are fed daily.
Second	4	4,094 0 2	All Brahmins are fed and conjee to poor daily.
Third	12	8,282 10 1	All Brahmins are fed daily.
Fourth	5	1,520 13 8	Batta, conjee, &c., miscellaneous charity.
Fifth	81	31,557 2 4	457 Brahmins fed daily.
Sixth	7	704 0 0	53 Brahmins fed occasionally.
Total...	113	59,399 19 3	510
Of this under Local Fund Board ...	8	10,567 14 0	
Private	105	48,831 12 3	

Mr. Whiteside.

In North Arcot there are very few local charitable institutions. At Vellore and at Arcot there are Lungerkhanas which are supported from endowments, the remains of charity of former native rulers of the country. These endowments are very small, and from them a small daily dole of grain is given to a limited number of beggars. The recipients of the dole are chosen irrespective of caste, and are usually deformed persons, cripples from age or infirmity, lepers, blind, &c. There is also the Annadana Chattram at Sholinghur, which from the income of its endowments, provides meals of cooked rice for pilgrims going to and from the temple of Sholinghur Hill. The funds of this institution are not available for feeding persons in times of distress, and this is also the case as regards the fourth and last charity in this district. This is Cunniah Chetty's Choultry at Vadamalpet, in the Karvetnagar Zemindari, wherein a limited number of *bona fide* travellers receive a daily dole of food.

The Lungerkhana at Vellore is managed by the Municipality; a Special Sub-Committee of the Commissioners superintend the issue of the dole and give away tickets to fresh applicants as vacancies occur. The income is only Rupees 3,828 per annum, and the number of persons anxious to participate in the dole is always far in excess of its capability. During the famine, in order that more might obtain some small relief, the daily dole of rice was reduced by one-half, and this was also done at Arcot where the Lungerkhana is managed by the Tahsildar for the time being under the orders of the Sub-Collector. The income of this institution is Rupees 1,320 per annum. The limited nature of their income and the fact that the recipients of the relief are selected from the very poorest and those most in need of charity whose numbers always far exceed the powers of the charity, prevent any appliance of the funds to charitable purposes in times of distress.

Mr. Grose.

The only local organised charity is the Nellore Lungerkhana, the chief work of which is to give cooked food to selected paupers. Its income is Rupees 2,940 per annum. It can only assist in famine operations by becoming the nucleus of a poor-house, and even that is undesirable.

Mr. J. G. Horsfall.

There are about a dozen local institutions at which food is distributed to a limited number and to particular classes. They are unimportant and could not be made available for feeding people of all classes. At the most important one only twelve Brahmins are fed daily; at the others still less. I do not think that they could be utilised in any way.

Mr. McC. Webster.

The Lungerkhana at Coimbatore is the only charitable institution in the district which has any organised system. It is managed by the Municipal Commissioners, and the ordinary income of Rupees 1,200 is devoted to feeding about fifty poor people. It is not capable of extension, and would not be of any appreciable benefit in a time of famine.

Mr. Sewell.

We have one Local Fund Chattram at which there is a very small allowance for feeding travellers daily. This amount was slightly enhanced during the famine. In Srirangam chiefly and in a few of the larger towns there are chattrams endowed or kept up

Mr. Sewell—continued.

by private individuals at which Brahmins first of all and then a few Sudras are fed daily. The total number of these institutions is said to be 182, and the average daily number of persons fed, 334. I do not think that in times of famine their usefulness can be extended. On the contrary, at such times their means are generally crippled and the distribution of food curtailed.

Mr. Stokes.

There are seventy-six chattrams in the district designed for the distribution of food to the people. They feed all but very low classes, such as Pariahs, Pullars, Shanars, &c. They are not able to meet the demands on them in famine times as they depend for their resources on crops, and therefore suffer from a failure. They were generally intended for the benefit of the pilgrims to Rameswaram and other places, and cannot, therefore, be made more effectual for charitable purposes in times of famine.

QUESTION 12.—It is assumed in Question 6 that the district officer believes the distress to be temporary, or is not satisfied that it is indicative of approaching famine. But it is possible that he may be mistaken in his appreciation of the facts he at first observed. What indications would lead him to conclude that he had been mistaken and that famine is imminent? What steps should he take to have any such indications brought to his notice? The most obvious points would be such as these: to obtain the best information as to the character and progress of the crops on the ground; as to the prices and the kind of grain exposed for sale in the markets; as to the fullness of stocks in the market and the quarter whence they come; as to police returns of lawlessness and crime; mortality returns of deaths; reports of deaths by starvation in villages, and more especially roadside deaths; emigration or movements of the people in any direction; sales of ornaments and jewels. Are there any other such indications, and in what way should he secure that such facts should be immediately brought to his notice?

Sir W. Robinson.

On the assumption of this question the district officer had better be removed—such was the experience of Madras administration—because while he is blundering the people are dying and irremediable confusion is arising.

On the whole, I think that the questions scarcely direct adequate attention to what must become the leading feature of all famine diagnosis and administration in the future—its sanitary and scientific diagnosis and management. The fidelity, therefore, as well as the light of science cannot be too early brought to bear on the occurrence or threatened occurrence of famine—and the local officers must immediately be brought into rapport with the Sanitary and Medical Establishments of the country, and must submit to their guidance in matters on which they are more competent to advise. Tropical famine is simply the occurrence of the most terribly lethal epidemic amongst the population that we know of; and withal the most insidious, unmanageable, and longest enduring in its consequences. It is, therefore, not a contingency which can be left to persons—however self-confident and self-assertive—who are necessarily ignorant of—possibly unsoundly biased in regard to—the very first principles of what they apply themselves to. Misinformation, mismanagement, and misdirection are the inevitable consequences of the default. The management of a cholera epidemic could not be left in the main to Indian Civilians and Soldiers without serious avertable disaster; and no more can a famine epidemic, amongst a declining, atrophied, and

Sir W. Robinsop—continued.

partially moribund population, be so treated without consequences proportionately more fatal. The first step, therefore, in the diagnosis and administration of famine is to get our Sanitary and Medical Officers well afield in observation of its first indications, and generally in guidance of measures of relief in several important respects. In no respect are the blunders of the past more regretful than are those which affect this essential feature of all true famine diagnosis and management. If experienced disaster has undermined misconception in this respect, the future administration may become more successful than the past. I am fain, therefore, to believe that the Commission will give special weight to this matter; and place sanitary science on its right footing as respects famine administration. One, I believe, of the most serious mistakes in the management of the earlier stages of the Madras famine was the late period, March or April, at which systematic sanitary inspection took the field; and even then it was of a somewhat too limited character. Later on it was dispensed with again although the mortuary returns showed little improvement in the severity of the epidemic. There should have been a Sanitary Inspector in itineration in every distressed district from the commencement of the distress; for no part of a sound and truth-seeking administration of famine needs more attention to the end.

Superior inspection of districts and direction and control of district officers have been defective throughout our famine—casual tours by individual Members of the Board of Revenue in the early six months excepted. This I believe to be an essential provision to secure the attention, strengthen the hands and guide the judgment of local officers, and to keep the administration in the several branches together. Much drift—amidst much excellent work—would have been avoided in more districts than one, had superior Civil Officers been assigned distinct ranges (say two or three districts each) of inspection and direction throughout our famine—entrusted with authority to direct and aid, and possessed of the confidence of Government. I scarcely doubt that the Commission will lay down principles that will remove this matter of misadministration for the future.

I may likewise notice incidentally as a matter of management of famine finance that itinerating professional Auditors and Accountants of the Accountant-General's Department should be afield from the commencement of the large expenditure inevitably connected with famine administration in any province. I believe that there is no reason whatever why with proper precaution in this respect the confusion which seems to occur in the provinces on each occurrence of famine in the country, should find place. I venture to think that benefit would have accrued from the adoption of this measure when it was mooted at the end of 1876 or beginning of 1877.

Mr Whiteside.

I do not think that it is possible for a district officer to mistake the signs which herald the arrival of a famine, always supposing, of course, that he takes an intelligent interest in his district and duties, and looks after them. The various points specified in the rest of this question may all be regarded as indications of impending distress, and should be quite sufficient to put an officer on his guard. There is one fact that I noticed in connection with this famine, which I regarded as a sign that the distress had reached persons not of the poorest class, and that was the receipt in the treasuries of ancient uncurrent silver coins in considerable numbers. Many of these coins were quite clean and bright. They had evidently been hoarded carefully and had hardly, if at all, been in circu-

Mr Whiteside—continued.

lation. The parting with these little treasures must only have been decided on when distress was being keenly felt by the owners. For there was nothing so marked throughout the famine as this propensity of the natives to save money by hook or by crook. Even paupers who died in the camps from emaciation, or the other ailments induced by continued privation, were very often found to have rupees concealed on their persons. This was the case amongst the very poorest of the people. The hoarding of ancient coins is a weakness of natives of the higher classes, and the voluntary surrender of what they undoubtedly had kept stored away for many years must only have been made when they were sorely pinched for ways and means of existence.

In this district where there are several temples of great reputed sanctity (Tripatty, Tirutani, Sholinghur, and Kalahastri) there is at all times a constant stream of pilgrims to and fro, many of whom have wandered on foot from the most remote parts of India, who reach the end of their pilgrimage in a state of great debility, and who set out on their return journey wholly unprepared to face the difficulties and privations of the weary march back. Many of these poor people sink exhausted and die by the wayside even in the best of years; so in North Arcot, where the famine broke out, it was not safe to set down to famine the various deaths of strangers reported periodically by the Police, and the Superintendent of Police admitted that his subordinates' reports of such deaths were to be accepted with great caution. Then, again, care has to be taken in deciding whether a sudden outbreak of grave crime is really to be ascribed to the effects of famine. In this district there were some notable and interesting circumstances in connection with the crime recorded in the years 1876-77 and 1877-78, which it is well I should here notice as showing the necessity for greater caution in estimating how far crime can be regarded as the outcome of distress. When the famine was commencing there were splendid crops of dry grain reaped in the Tirutani Division of the Karvetnagar Zemindari. At the same time the dry crops in parts of the Chendragiri Taluk and in the Kalahastri Zemindari and Narainvaram Division (all of them situated on the east of the district) were almost a complete failure.

In Tirutani the Zemindar's revenue for 1876-77 was only Rupees 1,000 less than it ever was in a good year. In Kalahastri, the Zemindar's revenue from dry lands was almost nil.

In Tirutani the growers received enormous profits in the way of prices paid by merchants from Bellary and Cuddapah, who came in large numbers by train and bought up prodigious quantities of grain at whatever fancy figures the owners put on it. When the villagers were aware of this they besieged the houses of the holders of large stocks of grain *with money in their hands* and offered to pay the same prices as the merchants from Bellary and Cuddapah if only the grain was not exported from the district. But the bargains had been concluded, and when attempts were made to carry the grain to the railway stations, the very people who had just offered to pay cash for it, with their wives and children in open day-light, attacked the carts and carried off the grain. The local Police set all these grain riots down as dacoities, and the District Superintendent, Deputy Inspector, and even the Inspector-General concurred in regarding them as so many indications of extreme distress, calling for the opening immediately of large relief-works and *apparently* overlooked the fact that at that time in the adjacent parts of the district that I have just named, where the crops had undoubtedly failed and where distress was more decidedly felt, there had been little or no rise in the crime reported, and when the bone of contention was removed and

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Mr. Whiteside—continued.

the crops had been carried away by train, crime at once fell again in Tirutani to its normal figure. Again in Punganur there was a great deal of dacoity for a long time during the famine, and for some time I was myself disposed to regard it as an indication of distress; but as time went on very large numbers of people were employed on relief-works, while crime showed no signs of falling. In one or two instances dacoits were shot and captured, and were always found to be robust men, well fed, and in the prime of life. Other circumstances occurred which induced me to suspect that the crime, then so prevalent, was really the result of the action of bands of organised robbers. The Deputy Inspector-General of Police came to the district and took charge of, and resided in the Punganur Zemindari for several months, and in a very short space of time after his arrival dacoity in that part of the country sank and disappeared. I mention these facts to show that the points named in this question cannot by any means be regarded as infallible indications of impending or present distress, and a district officer must carefully consider and cautiously abstain from accepting them as proofs of famine.

Mr. J. G. Horsfall.

Clause II—The weekly reports already referred to above—Question I—checked by personal inspection should afford him immediate and ample notice.

The sale and mortality of cattle as well as of men, difficulty experienced in collecting the usual kists, desertion or sale of children, increase in number of persons asking for food, and the flocking into towns and villages of bodies of emaciated people, are all indications which should be noticed in the weekly reports.

Mr. Price.

The indications named, with the addition of continued falling off in the condition of the people of the district, and increased applications on their part for work and relief, are those which ought to very soon show a district officer his mistake. The obvious means for securing this information are to move about himself, keep his officers moving and sending in weekly reports, and where things are said to be in a bad state, going to see for himself. No system of reports will ever give the information to be gained by keeping on the move.

Mr. Grose.

I believe the points enumerated in the question are the chief points to which the district officer's attention should be directed; but, as I have said, village inspection should be organised at an early stage.

Mr. Lee-Warner.

I have already observed in my answers under the first question of this chapter that if the second season of a series is bad all through, famine must follow in the third, which can only be averted by unusually good rains early in the third year; but which will even then leave great local distress: the district officer will, therefore, be guided accordingly. But in nearly all parts of this Presidency there are established weekly fairs so arranged that in turn at one centre or another of every ten miles within the district there is a weekly market almost every day of the week. These weekly markets afford very valuable indications of the progress of distress at this stage, as not only do the inhabitants of all the neighbouring villages come together of their own free will and much can be learned from their appearance and the cloths the women

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Mr. Lee-Warner—continued.

wear, the latter wearing their best at these meetings; but there is also an opportunity of judging from the articles brought in for sale, other than grain and cattle, such as doors, door-posts, old thatching, &c., and the prices which such articles fetch, how deep the distress has penetrated into the homes of the poor. While I was on famine duty, I never neglected the chance of pitching my camp near the place of such meetings, and during their course I always mixed in the crowd to observe these indications myself. It takes a good deal of driving to make a Revenue Native official see the uses of this sort of inspection.

Mr. Austin.

Qs. 12 & 13.

I do not think it possible for a divisional officer to mistake the signs of approaching famine. Continuous drought accompanied by mortality among cattle, a steady rise in the prices of food-grains, reports of desertion of small ryots and coolies from certain villages, increase of crime, in larger towns rumours of grain riots, increase of deaths: all these are facts that must come to the notice of a divisional officer, and from which he may easily predict with tolerable certainty the chances for and against a famine-year. With regard to the actual state of the country a divisional officer must learn this by steady touring through his taluks. The village officers are always ready to give information, although at the same time they are naturally prone to exaggerate. It is, of course, to the interests of the people to make matters out worse than they really are, and their representations must, therefore, be taken *cum grano*. A little care in sifting their statements will, however, generally enable a divisional officer to form a pretty accurate estimate of the real state of affairs.

In this as in every thing else much must, of course, depend on the energy and discretion of the individual officers. The signs are then plain enough if he will but take the trouble to read them, and has the ability to do so.

Mr. Seetharamiah.

The question itself contains the answer. The only thing the district officer has to do is to insist on his Tahsildars and other subordinates the necessity of furnishing at stated periods in a given form information on the points mentioned in the latter part of this question. The only addition I could make is that information should be obtained with regard to imports and exports of food-grains, and the number of plough cattle disposed of in markets for want of means of livelihood on the part of their owners.

Mr. Martin.

Other indications not noticed in the question are: (1) reports from other districts of the arrival of destitute paupers from his district in an emaciated state; (2) the arrival in his own large towns of emaciated paupers; (3) the state of the wells showing that the rain-fall has been shorter than was at first estimated; (4) the state of the people arriving on works and the representations they make.

Mr. Weekes.

The greatest and most certain indications of all, and which should at all times be carefully looked for, are emaciation, recourse to wild berries, leaves and roots, wandering in search of a better land (like the sons of Jacob going down into Egypt because *they heard* that there was corn in Egypt).

Mr. Weekes—continued.

The list of indications and precautions given in the question is nearly exhaustive. But personal observation and questioning without giving play for the self-interest of the examinee which would defeat the object in view is a great help. I generally find it a safe plan to ask the same question in a guarded way at distances of ten, twenty, forty, and sixty miles distant, and then if I get the same answers I feel pretty well assured of their truth.

Acceptance of the three tests should be regarded as an indication that there is a very small margin between the scarcity and famine.

To ensure that such facts are immediately brought to his notice he should let his subordinates, if apparently apathetic, know he means to be obeyed and made an example or two at the beginning. If they are willing and intelligent, he should let them carefully know his wishes. Punishments should be economised by being published in the District Gazettes.

Mr. Cook.

If after a few months of distress no signs of rain were visible, the prices kept rising, the local markets were getting reduced, people kept flocking to the works and were such as would not, unless pressed to it, seek Government aid on works, that property was being abandoned and sold, it might be conjectured that famine was imminent. A careful and frequent inspection of the works and villages, accurate statements by the Monigars and Police and Revenue Inspectors, would ensure reports of likely approaching famine.

Besides those mentioned in this question, such indications as indenting on the grain hoarded for sowing and future wants, payment to laborers in coin instead of grain, mortality among cattle, people living on roots and seeds, indifference as to caste prejudices, &c., are all symptoms of probable famine. Among the villages, payment for labor is always in grain. At the harvest so much is given to each barber, goldsmith, carpenter, &c., (money is seldom given), so that when we find a ryot paying for work in money, we may be sure that he has indented on his hoarded grain, and has either exhausted it all, or is reserving it for his family alone. Cattle, too, soon feel the drought, and when we see them dying or being driven away and sold, it is a pretty sure sign that the people are beginning really to suffer, for they know how difficult it is to replace them. Again, if we observe them picking up roots and seeds in the fields, it is very evident that they can get nothing at home, and would rather risk their life by disease than die of starvation. Lastly, caste prejudices soon begin to wear off. When we find the pariahs and caste men jostling against each other in their cry for food or work, and even sitting down and eating near each other, it is a conclusive fact that only sheer want consequent on famine makes them indifferent.

Such indications can only be brought to notice by insisting on a careful inspection and accurate reports of the taluk officials and by constant visiting on the part of the district officer. If these be strictly carried out, there is little fear of these indications not being brought to notice.

Lient.-Colonel Hasted.

The information procurable by district officers as to the stocks of grain available is never trustworthy, but the character of crops on the ground and state of the markets should give some indication of future prospects. The earliest signs of imminent famine will be found in the returns of crime and reports of roadside deaths; probably the surest sign will be the movement of considerable numbers of people through the principal towns and villages, to districts reported to be

Lient.-Colonel Hasted—continued.

flourishing: the tide which ebbed and flowed through the Kistna District was very remarkable.

Captain Awdry.

In addition to the indications enumerated, district officers would be led to conclude that famine is imminent by continuous application for work of increasing numbers of the laboring classes at the reduced rate of wages, and of application for work at all of the non-laboring classes.

Constant reports of numbers and the class of people applying for work should be furnished by the Public Works Department to the Collector who would then be able to judge pretty well of what need there was for extending relief operations.

Hurry Row.

If the district officer be what he should be, it is not at all difficult to know the real state of the district. The non-official portion of the community, if treated like gentlemen, if often met with, talked to, consulted and trusted and in short if treated differently from the treatment accorded to dishonest people, will afford all the necessary information for a Collector to know.

QUESTION 13.—On the other hand, the distress which the district officer has held to be serious, though temporary, may turn out to be so light as to require no special measures of relief. What are the indications which would lead to the conclusion that this is the case: and what steps should he take when he comes to that conclusion? Are any precautions requisite to guard against an erroneous estimate of the necessity for offering relief other than those which are supplied by the application of suitable labor or other tests?

Mr. J. G. Horsfall.

A good fall of rain, the commencement generally of agricultural operations accompanied by a fall in prices and the desertion of relief-works by the people and their return to their own villages would sufficiently indicate the non-necessity of continuing relief operations which should be closed.

Clause II.—A Special Commissioner might be deputed to visit the district and ascertain, by personal inspection and inquiry, that the views of the district officer were not exaggerated.

Mr. Grose.

If the wages on relief-works are subsistence wages graduated according to prices, there is no danger of their continuing after distress ceases. If it should happen that the numbers, though they diminish, do not decrease enough to warrant closing the work, a distance test, say, of ten miles, may safely be introduced.

Mr. Whiteside.

When famine works have been opened by Civil Agency, and the gangs do not fill; when the people who have no work to do in the fields will not accept the aid offered by the State either on the works or in relief-camps, but prefer to loaf about and beg, the district officers may safely conclude that distress is not severe or likely to be permanent. This was exactly what happened in Tirutani. The Police officials were urgent with me to open relief works on a large scale as soon as the grain riots attracted attention. I held my hand, convinced that the time for relief-works

Mr. Whiteside—continued.

there had not then come, and my conduct was sharply commented on at the time. When, however, works were actually opened, and that too extensively, the people on the spot would not go to them in any thing like the numbers that were expected, and the relief-camp for months was almost empty. If the famine had not continued throughout the land for upwards of two years, there would have been no real distress in Tirutani. Again, as soon as grain is once more exposed freely for sale in the streets, as soon as prices begin to show a falling tendency, as soon as persons begin to grumble at reduced wage on relief-works and to stop away in consequence, the district officer may conclude that the worst is nearly over and the relief measures in hand may gradually be discontinued. By the careful application of the distance, labor, and wage tests, I consider that a district officer can guard himself completely from an erroneous calculation of the necessity for relief, and I would suggest no others.

Mr. Price.

The first indication after those afforded by the weather would be the people quitting works, unwillingness to go to poor-houses and anxiety to get out of them, a fall in prices, and an improvement in condition of the masses. The people will seek and remain on village-relief long after any necessity for it exists. There are persons who can support themselves otherwise, but who will remain on works in order to make a little money whilst the crops are growing; and to get rid of these I would at this period follow the course generally adopted in the Cuddapah District of, when times show decided signs of mending, turning off all coolies in good condition.

Mr. McC. Webster.

A fall in prices and increased cultivation, &c., decreasing number on works, decreased crime and wandering when the district officer comes to the conclusion that no special measures of relief are necessary, any special works opened, and the poor-houses should be closed. The ordinary works, if the budget allotments have not been worked out, should be kept open at the reduced rates of wage for some time longer until it is shown that the people will not come on the lower rate of pay. If the budget allotments have been worked out, it would be necessary to keep on the special works for a time, until they are no longer resorted to by any considerable number of people, but the poor-houses should be abolished.

To summarise my answers to the questions in this Chapter, I would observe that, in my opinion, it would be very difficult, on the occurrence of distress, to forecast its eventual character. The district officer has at present access to many items of information, but more should be available; without a system of obtaining statistics of grain-stock and exports and imports, the district officer cannot forecast whether there will be a food-famine or not, and it is difficult to estimate accurately the purchasing power of the people, and therefore whether there is a likelihood of a money-famine, though this latter is not so important because Government should open relief-works under proper tests as soon as it is seen people require, and will come to them. In any case, however, I think the measures of relief should be similar, whether the distress is temporary or otherwise, only varying in degree. At the commencement therefore of distress work should be found for the weaver class, the ordinary works in progress should be

Mr. McC. Webster.—continued.

utilised as relief-works, and poor-houses should be established and village inspections introduced and money-dole relief afforded whenever necessary; then if distress continues, though still undeveloped, special works should be opened, and then the distress continuing, money-dole relief should be extended. The works, as a rule, should be under the supervision of the officers of the Public Works Department. The degree of relief to be afforded would vary with the circumstances. If the district officer's opinion of the commencing distress was mistaken, he would either gradually abandon relief by works, or would extend relief by works, open more poor-houses, and then extend the money-dole. I do not think it would be advisable to trust to or attempt to organise private charity at the commencement of distress. The proper field for private charity is either at the end of a famine, or at the commencement of the next cultivating season.

Mr. Lee-Warner.

Distress, not famine, is mitigated almost instantaneously at most within a fortnight by good general rains. The wells are set free again, and the dregs of the population subsist on herbs and grasses in a manner which is incomprehensible to Europeans. The classes just above them supplement their daily allowances with the same and the cultivation commences almost immediately. Even the works will show the result of a good rain-fall at such a stage, as 20 per cent. of the laborers would immediately desert. I do not understand the second question; the term "suitable labor or other tests" appearing to me to beg the whole. I do not think that so much need be made of the continuance of high prices alone, which depends on other considerations than actual scarcity of food-grain as the result of drought. The enormous sums of money which have been spent upon the masses in form of relief and private charity, and which will again be spent in similar times, have an influence in keeping up prices, not to mention the effect of the works themselves, which while they improve inter-district communication also facilitate exportation, which is much more largely carried on than in former times. The prices of all food-grains were actually much higher this year than in 1866 in this district, and in Ganjam, yet there has been only local distress, and general prices have probably sustained a rise from the effects of last famine, which they will maintain in part permanently.

Mr. Martin.

The district officer will take the same precautions to obtain information as are stated in the answer to Question 12, and if, in addition to the absence of emaciated persons from his tentative work or works, he finds that no persons have come from a distance, he may safely close works altogether. If there are persons from a distance along with those from near at hand, he should try the effect of opening a work some miles off and transferring all his laborers to it. Only those in distress will go, but new applicants from the new locality will arrive. A fresh transfer should be made after a time, and again after a little longer. The persons who remain will probably be few, and they will return to their houses the moment the season improves.

Mr. Seetharamiah.

If the character of the information which the district officer should have before him on the points mentioned in answers to Questions Nos. 1 and 12, shows signs of improvement likely to lead to a

Chapter II.—Question 13.

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Mr. Seetharamiah.—continued.

favorable prospect as compared with any previous good year, he can judge the real state of things. His frequent visits to the distress-stricken taluks and local personal inquiry into the state of things might also enable him to ascertain the correctness or otherwise of the reports received by him from his subordinates. No other precautions are requisite to guard against an erroneous estimate of the necessity for offering relief other than those which are supplied by the application of suitable labor or other tests.

Mr. Weekes.

Refusal of the distance, labor, and wage test when the condition of the people is manifestly not low, especially when there are good crops coming on and prices are falling. This indifference to offers of employment in scarcity must be very carefully distinguished from similar indifference during famine, when the people refusing are terribly emaciated, and are living on wild berries and leaves, and are especially during the rainy season extremely unwilling in their feeble state to leave the shelter of their homes and go to distant works. This is not the indifference of men who require no assistance, but the listlessness of despair and of extreme feebleness and sickness, so often observed as a famine symptom. I observed it in Kurnool in July and August 1878, and I should be inclined to think hundreds died in consequence of it. Distance tests and labor tests and closed camps in such times for such people are baneful in the extreme. During scarcity economy should be the rule, expenditure the exception; during famine the reverse; the loose rein in famine, the curb in scarcity.

The other precautions necessary constitute the most difficult part of the relief officer's business and requires far more local knowledge than he can possibly possess or acquire. He must call in the aid of village Magistrates and others who have the knowledge and how to extract that knowledge is a difficult matter requiring both tact and sternness. These men alone can tell who of the non-emaciated can support themselves. The emaciated necessitate no inquiry.

Mr. Oldham.

Midnapore in 1874 was a very good case in point. On the 1st January 1874 it was believed that there would be serious though temporary distress from April till August; and distress began to be felt in February and March but disappeared owing to a bountiful harvest, and the imports which resulted therefrom in an adjacent district which ordinarily did not import into Midnapore.

The indications of the cessation of distress were afforded by the relief-laborers melting away under the labor and wages tests.

Appendix A—continued.

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II.—STATEMENT showing the Male Adult Population arranged according to Occupation in each District of the Madras Presidency.

Districts.	Total Male Adult Population.	I. PROFESSIONAL.								II. DOMESTIC.	
		1				2				3	
		Government Service.		Military.		Learned.		Minor Professions.		Personal Service.	
		Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.
1. Ganjam ...	418,906	3,535	0.8	2,182	0.5	4,058	0.9	8,355	1.9	50,197	11.9
2. Vizagapatam ...	570,890	3,601	0.6	2,016	0.3	2,559	0.4	3,927	0.6	49,488	8.6
3. Godavari... ..	492,705	4,089	0.8	1,067	0.2	1,237	0.2	4,939	1.0	32,796	6.6
4. Kistna	466,487	4,755	1.1	647	0.1	2,423	0.5	8,687	1.8	29,166	6.2
5. Nellore	459,030	1,579	0.3	1,216	0.2	2,159	0.4	6,967	1.5	32,171	7.0
6. Cuddapah	456,075	1,598	0.3	1,601	0.3	1,139	0.2	4,694	1.0	39,838	8.7
7. Bellary	560,696	3,432	0.6	3,307	0.5	1,421	0.2	7,713	1.3	31,911	5.6
8. Kurnool	315,525	990	0.3	3,036	0.9	773	0.2	3,688	1.1	20,657	6.5
9. Chingleput	292,598	1,421	0.4	4,874	1.6	1,122	0.3	8,517	2.8	12,360	4.2
10. North Arcot	635,183	5,048	0.7	4,181	0.6	1,730	0.2	11,732	1.8	31,257	4.9
11. South Arcot	541,538	1,926	0.3	2,932	0.5	1,517	0.2	9,312	1.7	16,491	3.0
12. Tanjore	597,978	2,676	0.4	4,599	0.7	5,192	0.8	18,192	3.0	19,568	3.6
13. Trichinopoly	368,357	2,507	0.6	3,862	1.0	1,576	0.4	8,829	2.3	13,572	3.6
14. Madurai	641,802	1,806	0.2	1,239	0.1	1,208	0.1	10,291	1.5	19,916	2.9
15. Tinnevely	524,639	3,320	0.6	4,354	0.8	2,470	0.4	11,642	2.2	21,427	4.0
16. Coimbatore	536,677	2,247	0.4	2,101	0.3	848	0.1	9,434	1.7	25,080	4.6
17. Nilgiris	18,160	78	0.4	571	3.1	56	0.3	481	2.6	964	5.3
18. Salem	593,415	2,082	0.3	1,257	0.2	998	0.1	7,722	1.3	30,141	5.2
19. South Canara	294,407	1,457	0.4	1,463	0.4	926	0.3	7,543	2.5	7,855	2.6
20. Malabar	697,907	3,169	0.4	3,577	0.5	2,763	0.3	11,661	1.6	21,591	3.0
21. Madras	137,998	5,935	4.3	4,745	3.4	1,074	0.7	7,790	5.6	12,104	8.7
Total	9,669,973	57,251	0.5	54,827	0.5	37,249	0.3	172,116	1.7	519,350	5.3

STATEMENTS PREPARED FROM THE CENSUS RETURNS OF

I.—STATEMENT showing the proportions of the different Castes of the Male A

Castes.	Total Adult Males.	I.—PROFESSIONAL.								II.—DOMESTIC.		III.—COMMERCIAL.				IV.—AGRICUL- TURAL.		D.
		1 Government Service.		2 Military.		3 Learned.		4 Minor Professions.		5 Personal Service.		6 Traders.		7 Conveyors.		8 Cultivators.		
		Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	
1. Brahmans (Priests)	338,934	8,837	2.31	747	0.22	18,499	5.46	55,504	16.37	19,584	5.78	12,910	3.81	969	0.29	132,443	39.07	
2. Kshatriyas (Warriors)	63,400	1,107	1.74	1,111	1.74	217	0.34	788	1.24	3,628	5.72	2,559	4.03	175	0.28	42,092	66.39	
3. Chetties (Traders)	232,880	635	0.27	182	0.07	470	0.20	2,582	1.10	3,385	1.02	151,554	65.07	1,843	0.79	43,772	18.79	1.
4. Vellalars (Agriculturists) ..	2,578,500	19,416	0.75	13,045	0.50	3,649	0.14	31,015	1.20	62,690	2.43	82,963	3.22	9,990	0.39	1,922,605	74.56	18.
5. Idaiyars (Shepherds)	581,896	1,453	0.24	1,059	0.18	285	0.05	3,300	0.56	13,964	2.39	16,619	2.85	2,309	0.39	332,380	57.12	9.
6. Kamalans (Artisans)	251,954	324	0.12	81	0.03	318	0.12	1,853	0.73	4,276	1.69	3,363	1.33	544	0.21	24,624	9.76	
7. Kanakkan (Writer or Accountant) ..	32,635	767	2.35	117	0.36	1,156	3.54	8,657	26.53	3,054	9.35	760	2.32	112	0.34	11,840	33.20	1.
8. Kaikalar (Weaver)	354,630	598	0.16	368	0.10	426	0.12	2,824	0.79	3,939	1.11	14,281	4.02	341	0.09	33,271	9.38	256.
9. Vannian (Laborers)	1,247,664	3,511	0.28	6,396	0.51	1,061	0.08	10,403	0.83	16,714	1.34	18,857	1.51	7,587	0.60	882,453	70.72	6.
10. Kusavan (Potters)	84,466	50	0.05	30	0.03	52	0.06	804	0.95	2,446	2.89	3,497	4.14	154	0.18	16,846	19.94	
11. Satani (Mixed Castes)	228,358	1,022	0.45	1,514	0.66	1,807	0.79	16,176	7.08	7,660	3.35	12,794	5.60	881	0.38	103,065	45.13	6.
12. Sembadavan (Fishermen) ..	307,288	944	0.30	3,350	1.09	335	0.10	1,701	0.55	12,450	4.05	15,018	4.88	1,582	0.51	152,714	49.69	3.
13. Shanani (Toddy-drawers) ..	504,977	864	0.17	532	0.10	1,367	0.27	4,745	0.93	7,468	1.47	41,909	8.29	1,764	0.34	173,484	34.35	3.
14. Ambattan (Barbers)	112,871	271	0.24	170	0.15	1,439	1.2	2,383	2.11	73,427	65.05	1,009	0.90	123	0.10	16,422	14.54	1.
15. Vannan (Washermen)	178,860	208	0.11	175	0.09	624	0.34	1,820	1.01	126,087	70.49	863	0.48	220	0.12	18,990	10.61	5.
Other Hindus	734,173	2,677	0.36	3,149	0.42	1,022	0.13	8,260	1.12	31,736	4.32	64,461	8.78	4,173	0.56	295,792	40.28	7.
Pariahs (Outcasts)	1,569,922	4,380	0.27	8,326	0.53	1,604	0.10	10,282	0.65	104,955	6.68	15,996	1.01	9,412	0.59	509,261	32.43	178.
Labboys	82,279	139	0.16	156	0.18	424	0.51	697	0.84	1,416	1.72	21,307	25.89	1,109	1.34	28,013	34.04	7.
Mapilahs	165,542	214	0.12	93	0.05	381	0.23	1,289	0.77	2,528	1.56	27,458	16.58	1,932	1.17	57,275	34.59	1.
Arabs	406	3	0.73	..	..	2	0	3	0.73	13	3.20	168	41.37	14	3.44	35	8.62	
Sheik	158,066	4,254	2.69	4,968	3.14	619	0.39	2,201	1.39	13,029	8.24	14,155	8.95	1,554	0.98	48,311	30.56	12.
Syud	26,630	868	3.25	882	3.31	300	1.12	546	2.05	1,908	7.16	2,044	7.67	299	1.12	8,199	30.78	1.
Patthan	20,159	906	4.49	1,324	6.56	157	0.78	99	2.52	1,844	9.14	2,055	10.19	203	1.00	5,851	29.02	
Moghul	3,571	183	5.12	201	5.71	11	0.31	75	2.10	358	10.02	393	11.05	49	1.37	999	27.97	
Other Mahomedans	83,452	..	..	..	..	..	..	..	..	..	..	10,989	12.39	1,403	1.78	17,208	20.69	15.
Europeans	6,711	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Eurasians	5,991	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Others	1,770	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total	9,957,985	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

IX A.

OF 1871 IN CONNECTION WITH QUESTION 5 CHAPTER II.

Adult Population of the Madras Presidency classified according to occupation.

V.—INDUSTRIAL.									
9 Press.	10 Food.		11 Metals.		12 Construction.		13 Books.		14 Household G
Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.
165	0-05	1,778	0-54	20	0-005	55	0-01	40	0-01
115	0-65	673	1-06	148	0-23	344	0-54	31	0-05
333	0-78	1,988	0-85	272	0-11	262	0-11	43	0-01
278	0-70	19,980	0-77	1,027	0-03	8,594	0-33	722	0-03
381	1-69	81,927	14-07	429	0-07	879	0-15	114	0-02
550	0-33	2,015	0-79	115,954	46-02	74,211	29-45	551	0-21
209	3-70	144	0-44	50	0-15	159	0-48	21	0-06
787	72-40	2,406	0-67	252	0-07	436	0-12	20	0-005
191	0-49	25,510	2-04	1,136	0-09	7,933	0-63	285	0-02
175	0-20	680	0-80	145	0-17	632	0-74	200	0-23
875	3-01	2,444	1-07	424	0-18	1,248	0-54	62	0-02
353	1-09	32,517	10-58	1,231	0-40	472	0-15	97	0-03
220	0-63	114,252	22-62	738	0-14	5,461	1-07	53	0-01
353	1-46	580	0-51	9	0-007	84	0-07	15	0-01
506	3-07	565	0-31	14	0-007	101	0-05	1	0-0005
563	1-03	15,310	2-08	1,120	0-15	13,283	1-81	414	0-05
902	11-39	25,025	1-59	1,589	0-10	4,252	0-27	258	0-01
904	8-51	1,618	1-96	297	0-36	241	0-29	50	0-06
900	0-60	2,777	1-67	61	0-03	526	0-31	54	0-03
23	5-66	..	..	..	..	..	..	..	..
738	8-05	1,635	1-03	505	0-31	655	0-41	58	0-03
392	6-35	257	0-96	106	0-39	278	1-04	11	0-04
148	2-22	118	0-58	65	0-32	78	0-38	3	0-01
105	2-88	17	0-47	4	0-11	9	0-25	1	0-02
577	18-78	3,224	3-86	339	0-40	311	0-37	83	0-09
30	0-44	17	0-25	5	0-07	84	1-24	15	0-22
337	5-62	98	1-63	125	2-08	406	6-77	206	3-43
88	4-97	39	2-20	60	3-38	84	4-74	13	0-70
996	5-44	337,594	3-39	126,125	1-26	121,978	1-21	3,421	0-03

VI.—INDEFINITE AND UNPRODUCTIVE.									
15. Combustibles.		16. Laborers.		17. Property.		18. Unproductive.		19. Others.	
Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.	Number of Persons.	Percentage to the Total Number.
11	0-003	5,384	1-59	64,545	19-04	15,529	4-58	1,898	0-44
17	0-03	5,304	8-36	3,022	4-76	1,509	2-37	223	0-35
119	0-05	20,568	8-83	1,902	0-81	881	0-37	516	0-22
819	0-03	325,576	12-62	38,217	1-48	11,870	0-46	6,060	0-24
191	0-93	105,215	18-08	4,805	0-82	5,082	0-87	1,939	0-33
403	0-15	18,549	7-36	1,689	0-67	571	0-22	914	0-36
23	0-07	2,210	6-77	2,094	6-38	208	0-63	41	0-12
183	0-05	34,031	9-59	1,632	0-46	1,811	0-50	886	0-24
977	0-07	232,387	18-62	20,065	1-60	3,645	0-29	1,743	0-13
471	0-55	6,486	7-67	991	1-17	502	0-59	804	0-95
142	0-06	37,700	16-50	4,546	1-99	25,900	11-34	3,011	1-31
15	0-03	73,506	23-92	4,263	1-38	2,114	0-68	1,238	0-40
93	0-05	143,479	27-41	1,619	0-32	848	0-16	1,894	0-37
28	0-02	11,189	9-91	2,053	1-81	319	0-28	1,604	1-42
39	0-03	18,404	10-28	1,934	1-08	466	0-26	2,639	1-47
144	1-07	243,443	33-16	4,042	0-55	12,250	1-67	4,725	0-64
188	0-01	633,607	40-35	12,673	0-87	14,868	0-94	32,490	2-06
..	0-06	16,887	20-52	1,505	1-82	859	1-04	210	0-25
..	0-08	68,952	41-65	289	0-17	357	0-21	76	0-04
..	..	134	33-00	4	0-98	6	1-47	..	..
..	0-04	46,284	29-28	2,331	1-47	3,449	2-18	817	0-51
..	0-03	6,880	25-83	1,012	3-80	1,074	4-03	195	0-73
..	0-03	5,471	27-13	277	1-37	658	3-26	137	0-67
..	0-11	846	23-69	204	5-71	50	1-40	48	1-34
..	0-08	16,954	20-31	1,432	1-71	2,267	2-71	432	0-51
..	0-04	24	0-35	14	0-20	10	0-14	69	1-02
..	0-03	173	2-88	57	0-95	51	0-85	58	0-96
..	0-22	299	16-89	25	1-41	35	1-97	23	1-29
0-13	..	2,079,942	20-88	177,242	1-77	107,189	1-07	64,690	0-64

II.—Statement showing the Male Adult Population arranged according to Occupation in each District of the Madras Presidency—continued.

V. INDUSTRIAL—continued.

Districts.	Male Adult Population.	11 Metals.		12 Construction.		13 Books.		14 Household Goods.		15 Combustibles.	
		Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.
1. Ganjam ...	418,906	7,763	1.8	3,560	0.8	23	0.005	3,536	0.8	570	0.1
2. Vizagapatam ...	570,890	14,682	2.5	6,654	1.1	57	0.009	3,011	0.5	704	0.1
3. Godavari ...	492,705	6,601	1.3	3,139	0.6	81	0.01	3,779	0.7	728	0.1
4. Kistna ...	466,487	6,613	1.4	5,802	1.2	52	0.01	5,527	1.1	177	0.03
5. Nellore ...	459,030	4,415	0.9	4,296	0.9	115	0.02	4,429	0.9	371	0.08
6. Cuddapah ...	456,075	3,085	0.6	3,006	0.6	88	0.01	3,384	0.7	516	0.1
7. Bellary ...	560,696	4,599	0.8	4,818	0.8	147	0.02	3,094	0.5	262	0.04
8. Kurnool ...	315,525	2,220	0.7	3,380	1.0	62	0.01	2,963	0.9	458	0.1
9. Chingleput ...	292,598	2,997	1.0	4,130	1.4	44	0.01	3,089	1.0	221	0.07
10. North Arcot ...	635,183	6,386	0.9	5,073	0.7	40	0.006	4,846	0.7	705	0.1
11. South Arcot ...	541,538	5,691	1.0	5,636	1.0	177	0.03	3,864	0.7	474	0.08
12. Tanjore ...	597,978	10,490	1.7	10,019	1.6	258	0.04	4,248	0.7	487	0.08
13. Trichinopoly ...	308,357	4,853	1.3	4,539	1.2	50	0.01	2,754	0.7	200	0.05
14. Madras ...	681,802	7,737	1.1	7,866	1.1	136	0.01	3,588	0.5	75	0.01
15. Tinnevely ...	524,639	10,579	2.0	12,963	2.4	127	0.02	3,543	0.6	347	0.06
16. Coimbatore ...	536,677	5,537	1.0	5,888	1.0	116	0.01	5,408	1.0	814	0.1
17. Nilgiri ...	18,160	143	0.7	311	1.7	15	0.08	39	0.2	2	0.01
18. Salem ...	593,415	6,392	1.0	5,370	0.9	70	0.01	4,904	0.8	424	0.07
19. South Canara ...	294,407	2,784	0.9	2,611	0.8	103	0.03	1,948	0.6	631	0.2
20. Malabar ...	697,907	9,070	1.2	16,403	2.3	507	0.04	3,217	0.4	4,854	0.6
21. Madras ...	137,998	3,580	2.5	5,542	4.0	1,353	0.9	634	0.4	169	0.1
Total ...	9,660,973	126,117	1.3	121,036	1.2	3,421	0.03	71,805	0.7	13,189	0.1

II.—Statement showing the Male Adult Population arranged according to Occupation in each District of the Madras Presidency—continued.

Districts.	Male Adult Population.	16 Laborers.		17 Property.		18 Unproductive.		19 Others.		TOTAL.	
		Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.	Number of Persons.	Percentage to the Male Adult Population.
1. Ganjam ...	418,906	90,363	21.5	2,911	0.6	4,980	1.1	1,937	0.4	489,657	116.8
2. Vizagapatam ...	570,890	112,092	19.1	14,394	2.5	3,395	0.5	2,781	0.4	675,240	118.2
3. Godavari ...	492,705	96,867	19.6	23,401	4.7	5,207	1.0	4,607	0.9	542,575	110.1
4. Kistna ...	466,487	55,088	11.8	8,240	1.7	9,123	1.9	7,549	1.6	477,134	102.2
5. Nellore ...	459,030	118,249	25.7	5,732	1.2	9,886	2.1	8,634	1.8	494,532	107.7
6. Cuddapah ...	456,075	99,830	21.8	11,694	2.5	7,572	1.6	8,892	1.9	481,644	105.6
7. Bellary ...	560,696	94,952	16.9	3,056	0.5	10,865	1.9	2,282	0.4	530,432	94.6
8. Kurnool ...	315,525	72,771	23.0	11,343	3.5	9,186	2.9	3,298	1.0	328,014	103.9
9. Chingleput ...	292,598	70,551	24.1	219	0.07	2,666	0.9	1,304	0.4	304,250	103.9
10. North Arcot ...	635,183	120,076	18.9	14,649	2.3	6,713	1.0	3,495	0.5	622,925	98.0
11. South Arcot ...	541,538	111,623	20.6	340	0.06	4,298	0.7	1,607	0.2	569,880	105.2
12. Tanjore ...	597,978	96,483	16.1	73,731	12.3	7,111	1.1	10,365	1.7	598,590	100.1
13. Trichinopoly ...	308,357	70,587	19.1	490	0.1	2,163	0.5	2,443	0.6	380,259	103.2
14. Madras ...	681,802	125,194	18.5	512	0.07	2,677	0.3	1,115	0.1	718,114	105.3
15. Tinnevely ...	524,639	104,936	18.09	374	0.07	2,864	0.5	1,089	0.2	507,601	96.7
16. Coimbatore ...	536,677	138,679	25.8	149	0.02	3,613	0.6	779	0.1	537,520	100.1
17. Nilgiri Hill ...	18,160	3,930	21.6	71	0.3	41	0.2	207	1.1	16,322	89.8
18. Salem ...	593,415	118,206	19.9	1,768	0.2	5,169	0.8	1,416	0.2	601,173	101.3
19. South Canara ...	294,407	36,273	12.3	266	0.09	816	0.2	123	0.04	287,638	97.7
20. Malabar ...	697,907	311,242	44.5	1,491	0.2	2,360	0.3	301	0.04	653,834	93.6
21. Madras ...	137,998	23,610	17.1	1,749	1.2	3,073	2.2	399	0.2	112,678	81.7
Total ...	9,660,973	2,071,602	21.4	176,580	1.8	103,778	1.0	64,683	0.6	9,930,012	102.7

தமிழ்நாடு ஆவணக்காப்பக நூலகம்,
எழும்பூர், சென்னை-600 068.

தவணைத்தாள்.

சே. எண் :

11. **ଶିକ୍ଷା :**

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